No. 16132

IN THE

United States Court of Appeals

for the Ninth Circuit

JAMES MOON, EDMOND M. WAGNER and PHILIP SUBKOW,

Appellants,

vs.

CABOT SHOPS, INC., and HOWARD SUPPLY COMPANY,

Appellees.

APPELLANTS' OPENING BRIEF

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I

STATEMENT OF PLEADINGS AND OF FACTS RELATING TO JURISDICTION

The District Court had jurisdiction of this action under the Patent Laws of the United States, Title 35 of the U. S. Code, and Title 28 of the U. S. Code, Sec. 1338(a).

The Pleadings consist of a complaint (Record p. 3) alleging infringement by defendants Cabot Shops, Inc.

and Howard Supply Company of the U. S. Letters Patent 2,671,537 (Ex. 1, Record p. 638) which, as will appear, relates to a portable derrick such as is used on oil wells and which is mounted on a hinge positioned above the driver's position at the front end of the truck so that it may be erected at the front end of the truck, all as will be more specifically set forth hereinbelow.

An answer was filed denying that the patent was duly or legally issued, alleging (par. 2) that the claimed invention did not constitute invention over the prior art "as it existed at the time of the alleged inventions thereof"; (Par. 5, Record p. 6) that they were disclosed in prior publications and Letters Patent (par. 6) and were in public use prior to Moon's invention and for more than one year prior to the filing date of the Moon patent (par. 7) and denied infringement (par. 3).

The issues presented by the Complaint and Answer were further formulated specifically by means of Interrogatories and a Pretrial Conference Order.

A. ISSUES RELATING TO VALIDITY AND INFRINGEMENT

The only issues of law and fact to be litigated were fixed by the Pretrial Conference Order (Ex. 101, Record pp. 57-64).

1. Only the following issues of fact were to be litigated upon the trial (see Pretrial Conference Order VI, Record p. 62).

(a) All facts stated in Plaintiffs' Pretrial Statement of Facts (Record pp. 28-49) and De-

fendants' Pretrial Opening Statement (Record pp. 49-56) not admitted to be true under Par. III of the Order (Record pp. 57-61). See also Par. IV of the Order (Record p. 61) and the Issues of Fact corresponding to the Issues of Law as set forth in Par. VIII of the Order (Record p. 62 & 63).

2. Only the certain Issues of Law, set forth below, were to be litigated. (Pretrial Conference Order, Par. VIII, Record pp. 62 & 63).

3. These issues were further narrowed by the following answers to Plaintiffs' Interrogatories (see Stipulation, Record pp. 86 & 87):

(a) Answer to Interrogatory Nos. XXI and XXIV, filed February 21, 1958 (Record pp. 24, 25 & 27, Ex. 102):

"Interrogatory No. XXI

Answer: Defendant is presently without independent knowledge as to the date of the making of the alleged invention by the plaintiff Moon. Defendant will not rely upon evidence as to the prior art other than patents and publications previously called to the attention of plaintiffs except for Waldrip advertisements appearing in journals and publications in 1946 and 1947." (Record p. 24)

"Interrogatory No. XXIV

Answer: Defendant will rely upon the following patents to disclose the elements of the alleged invention:" (Ex. 16 Patents) (See Attached List) (Record pp. 25, 26 & 27)

(b) Answer to Interrogatory XXV (Record p. 26): "Answer: Defendant withdraws the defense of prior public use."

(c) Answers to Interrogatories XXI, XXII, XXIII and XXIV (Ex. 103) (Record pp. 85 & 86):

"ANSWER: Further answering Interrogatories XXI, XXII and XXIII, the evidence to be relied upon by defendant, Cabot Shops, Inc., as to prior art will consist of the patents and publications, copies of which appear in connection with Exhibits M, N, O, P, Q, R, S and T. Defendants accept December 16, 1946 as the date upon which Mr. James Moon made the alleged invention of the patent in suit." (Record p. 85).

It was stipulated that the date December 16, 1946, as given in the answer should read December 12, 1946, as the date of the invention. (Record p. 121).

"Interrogatory XXIV

Answer: Further answering Interrogatory XXIV, defendants are currently of the opinion that the patents to Morton and Evans, copies of which appear in Exhibit S, are the best references." (Record pp. 86 & 128)

Counsel for defendant reaffirmed this answer with an amendment including the Downie patent (Record p. 368).

The advertisements (Exhibits M, N, O, P, Q and R) were not offered as prior art under Section 103 of Title 35 but as anticipations under Section 102(b) of Title 35 (Record pp. 493 & 494).

4. With regard to the patents introduced in connec-

tion with Exhibit T (see Ex. T-1) it was stipulated in open court by appellees' counsel, Mr. Kenway, that the patents in Exhibit T-I are offered for the limited purpose of aiding the interpretation of the file wrapper and were not offered on the issue of validity and were accepted into evidence for the limited purpose to aid in the interpretation of the file wrapper (Record pp. 300-302; 362-365).

5. The issues thus formulated by the Pleadings, the Answers to Plaintiffs' Interrogatories and Pretrial Conference Order (Record pp. 62 & 63) were:

(a) As to validity:

(i) "1. (a) Was the invention, claimed in the claims of the patent in suit, patented or described in any printed publication, cited by defendant Cabot Shops, Inc. in its answer to Plaintiffs' Interrogatories, before the invention thereof by James Moon?"

Note: The patents thus cited are those given in the Answers to Interrogatories XXI to XXIV and XXIII, and the publications are those given in the above Answers to-wit, those included in Exhibits M, N, O, P, Q, R and S. Since the date of invention was admitted to be December 12, 1946, and since, as will be discussed further in this brief, the dates of publication of Exhibits M through R were later than that date, only certain of the patents of Exhibit S are effective either as patents or as publications prior to December 12, 1946, and are material to this issue which, in this limited form, arises under Title 35, U.S.C., Sec. 102(b). This was

admitted. (See supra). Of the patents included in Exhibit S, the Evans patent was patented on November 15, 1949. Since this date is the effective date of the Evans patent either as a patent or publication, this patent is not material to the above issue of law which arises under Section 102(b) Title 35 U.S.C. This leaves of the so-called "best reference" relied on by Appellees only the Morton patent and perhaps the Downie patent.

(ii) "(b) Was the invention patented or described in a printed publication in this country, cited by said Defendant in its answers to Plaintiffs' Interrogatories, more than one year prior to the filing of the application for the patent in suit?"

Note: This issue arises under Section 102(b) Title 35. The filing date of the patent in suit is June 28, 1948. This excludes the Evans patent.

(iii) "2. If the invention of the patent in suit is not identically disclosed in any of the aforesaid patents and patent publications, as referred to in Paragraph 1, subparagraphs (a) (b) above, is the difference between the subject matter sought to be patented by said patent and the said patents and publications such that the subject matter as a whole would have been obvious at the time the invention was made to persons having ordinary skill in the art to which said subject matter pertains?"

Note: The only patents and publications offered by appellees on this issue and having

an effective date prior to the date of invention are those in Exhibit S (other than the Evans patent) which were patented or published prior to December 12, 1946; this issue as to them arises under Title 35, U.S.C., Sec. 103.

(b) As to infringement:

(i) "3. Does the equipment as illustrated in the 1956 Catalog of defendant Cabot Shops, Inc., at page 1810 and in the 1957 Catalog pages 1883, 1884 and 1885, and manufactured and sold by said defendant and its predecessor, Franks Manufacturing Corporation, constitute an infringement of the claims of the patent in suit?"

Note: The 1956 catalog is in evidence as Exhibit 55, and the 1957 catalog as Exhibit 54. Portions of the pages 1810, 1883, 1884 and 1885 showing this equipment are reproduced in the Appendix. Sale of 16 such units and at least one in the Southern District of California was admitted and found as fact by the Court (Pretrial Conference Order, Ex. 101, Record p. 57, Par. III(8), Record p. 59 and Par. III(12), Record p. 60, incorporating Item 52 (a) and (d) and all subdivisions of (d), Record pp. 43 & 44, and Item 53 and all its subdivisions, Record pp. 43-44, and 54(a), Record pp. 44-45 of the Plaintiffs' Pretrial Statement of Facts; (see Finding of Fact #2, Record pp. 43-45).

(ii) "4. Has the defendant Howard Supply Company infringed the patent in suit by sale of any of the foregoing equipment?"

II

STATEMENT OF THE CASE

A. NATURE OF THE APPEAL

This is an appeal by appellants (Record p. 92) from a judgment (Record pp. 88-90) of the District Court dismissing the above complaint on the ground that none of the claims of the patent in suit have been infringed by appellees.

Appellees below have cross-appealed (Record p. 93) from that part of the judgment holding the patent in suit and each of the claims thereof good and valid in law.

B. THE PATENT IN SUIT

1. The Specification

The structure described by the patent (Ex. 1) relates to portable drilling and servicing units used for drilling of oil wells and also for servicing of oil wells after they are drilled.

A telescopic derrick is hingedly mounted above the driver's position at the front end of a truck. The engine is mounted on the rear of the chassis. Winches are positioned between the driver and the engine. The hinge is so positioned at the front end of the truck so that when transported the collapsed derrick lies above the engine and the driver with its bottom to the front of the truck. Means are provided to rotate the derrick on its hinge so as to erect the derrick at the front end of the truck. The derrick may then be extended to working height.

(a) The Chassis and Location of Engine and Winches

The chassis of the truck is formed of longitudinal frame members 11 (see Figs. 1 & 6) and front cross member 13 and rear cross member 12. The engine 4 is mounted on this chassis at the rear of the truck (see Figs. 1, 6 & 7). The cab 10 is positioned at the forward end of the chassis and the winches 6 and 7 are positioned on the chassis between the cab and the engine (Figs. 1 & 2).

(b) The Driver's Position

The driver's position in the cab is shown in Figs. 1, 3 and 6 where the seat, steering wheel and pedals are shown. Such controls are conventional in trucks. Because the cab is positioned adjacent the front wheels, where also the derrick is provided, the driver has an unobstructed view of the location where the derrick is to be erected. The patent states at column 2, line 31 et seq., "The driver in his cab position, where he has, as is conventional in trucks, all of the steering and driving controls, can see the derrick moving into position at all times and thus may, if he so desires, readjust his position with great facility."

(c) The Derrick and Derrick Hinge

The derrick 19 is a telescopic derrick in that it is composed of a lower and an upper section, the upper section being identified as 19. This may be extended when erected or retracted when returned to rest position (see col. 1, lines 1 to 16, and Figs. 1 & 3).

The derrick is hinged above the driver's position on two split bearings 16. The tubular cross member 17 of

the derrick is pivotally mounted on these bearings (see Figs. 6 & 11) which are positioned between the legs of the derrick. The bottom end of the derrick, provided with retractable leg extensions 41 (see Figs. 1, 3 & 4), extends to the front of the truck while the top end of the derrick is to the rear of the truck where it rests on a post 20 (see Fig. 1). The elevation of the hinge above the driver's position is such that when the derrick is in its retracted position it lies above the engine and winch (see Fig. 1).

(d) Derrick Hinge Support

The hinge is supported on a framework (see Figs. 6 & 11 and col. 3, lines 33 to 38). The framework consists of upright members 14 mounted on the chassis cross members 13 and the top hinge supporting cross members 15, with angle braces as will appear in Fig. 11, extending between 14 and 15, these angle braces being unnumbered. The framework is further reinforced and braced. Unnumbered members shown on Fig. 6 composed of an unnumbered angular member extending from bracket 26 to where the member joins an unnumbered vertical member adjacent thereto and by a cross member extending from the juncture of the unnumbered vertical members to member 14, as will appear in Fig. 6. There is one such structure on each side of the driver's position (see Fig. 11). The member 15 carries the hinge bearing 23 (see Fig. 11).

(e) The Transverse Extent of the Derrick Legs and Hinge Supporting Structure

The lower end of the derrick terminates in four legs, one front and rear leg forming a pair on one side

of the driver's position and another like pair on the other side of the driver's position. The transverse spacing of these pairs of legs and the arrangement of the support columns 14 and the cooperating hinge supporting structure on each side of the cab (see Figs. 11 & 14) gives to the driver a clear view of the well head and permits him to spot the truck accurately (see Ex. 1, col. 4, lines 18 to 26 and lines 59 to 69). As will be seen from Figs. 6 and 11, the hinge support columns 14 and cross member 15 are in front of the driver when he sits in the driver's seat position, and provides a protective framework to support the heavy load of the derrick to protect the driver and give him a clear view ahead (Record pp. 194-195; pp. 254 & 255).

(f) Derrick Erecting Means

The derrick erecting mechanism is composed of a pair of hydraulic jacks 27, one on each side of the truck. Each jack cylinder is hingedly mounted on a bracket 26 positioned one on each side of the truck on the chassis frame member 11 behind the cab. The extensible piston rods 28 of the jacks (see Figs. 1, 3, 6, 8, 9 and 10) are each hinged to the derrick by means of a split bearing 29-30 which are locked in place by a clamping bolt 32. The tubular cross frame member 33 of the derrick is journaled in the bearings (see Ex. 1, col. 3, lines 53 to 68). It will be observed that the hinges 25 are behind the front wheel axle and that the derrick extends both sides of hinges at 33 where each of the two jack extensions 28 is hinged to each side of the derrick.

(g) Operation of the Portable Derrick

(i) Over-the-Road Position and Spotting of the Derrick

In the over-the-road position (see Fig. 1), the upper section of the derrick is telescoped into the lower section and the feet 41 of the extensions of legs 25a are retracted so that the distance between the hinge point 17 and the derrick end is less than the height of the hinge point from the ground (Ex. 1, col. 3, lines 48-53; col. 4, lines 36 to 39). By making these extensions of the desired length, they may be telescoped back and the legs may be made to extend forward of the front end of the truck for a desired distance, as, for example, to give a three-foot overhang (Record pp. 198 & 199). As to the clear vision ahead and the driver's ability to accurately spot the derrick, see supra (b) of this Section B-1 page 9 and infra.

(ii) The Erection of the Derrick

The jacks 28', of which there are two, one on each side of the truck (see Figs. 6 and 10), are lowered from their dotted position in Fig. 6 and adjusted to wedge the truck into position (Ex. 1, col. 4, lines 27-32). With the jacks in position, the two jack 27 are extended and rotate about the hinge 25, causing the derrick to be lifted and rotated about the hinge at 17.

The arrangement of the erecting jacks 27 and the hinge points 33 and 17 cooperating with the chassis frame and the supporting structure for the hinge 17 and with the weight of the truck b e h i n d the bracket 26, produce the following balance of forces when the derrick is lifted (see Ex. 1, col. 4, lines 40-58, Record pp. 205-209):

As the jacks 27 are extended, the derrick is lifted from its support 20 at the rear of the truck. It rests on the jack extension 28 with its greater weight to the rear of the hinge 33. This creates an upward pull or upthrust on the hinge supporting structure 14. At the same time the thrust of the jacks to raise the derrick creates a reactive thrust against the bracket 26 which is transmitted to the chassis frame member 11 as a thrust in the direction of the ground against the jacks 28'. This places the chassis frame members 11 in bending between the bracket 26 and the front cross member 13. The relatively short distance between the bracket 26 and the front cross member 13 limits the severity of this bending moment. The major portion of the derrick weight being, at this period during erection, located behind the hinge point at 33, the magnitude of the downward thrust at 26 added to the weight of the truck and equipment keeps the platform stable.

As the mast is raised, the center of gravity of the derrick moves forward in an arc above the driver's position and will at an intermediate point in the erection of the derrick arrive at a point directly over the hinge point of the jack 28 at the bracket 26 (see Figs. 1 & 6). As the derrick moves further forward to complete its erection, the load on the hinge 17 becomes a downward load which is exerted on the hinge supporting structure and is transmitted downward towards the chassis through the member 14 (see Fig. 6). This load is counterbalanced by the weight of the truck and its components. The load during erection of the mast is thus exerted on the chassis between the front and rear wheels as a downward load and this downward load added to the weight of the truck is greater at all

times than the load on that part of the chassis forward of both the derrick hinge location or of the front axle. A stable platform for the derrick during erection is provided throughout the erection operation. (Ex. 1, col. 2, lines 19 to 30; col. 4, lines 40 to 58, Record pp. 205-209).

When the derrick has reached its final erect position, the leg extensions are screwed down to rest on blocks 42 positioned on the ground. The derrick in common with portable derricks in the erect position has a slight forward tilt (see Fig. 6). The upper section is extended by means conventional in this art in connection with telescopic derricks. The patent refers to such derricks (see Ex. 1, col. 1, lines 1 through 25). The White patent 2,204,713 is in evidence as Exhibit 10 (Record p. 658).

(iii) The Transference of Derrick Loads to the Ground

The derrick carries the usual crown blocks and lines as is usual for derricks employed on oil wells. The line, hanging vertically, is at an angle to the center line of the derrick and to the four legs. (This is illustrated in Ex. 95 in the appendix and Ex. 35, Record p. 684). When the derrick is in operation the forces exerted on the derrick are carried to the ground on each side of the driver's position, through the legs to the ground and also through the cooperating members of the hinge support to the chassis and thus to the ground as follows: (see Record pp. 212, 213, 267, 269-285).

Mr. Moon at the above places in the Record used the patent and Exhibit 95 for the purpose of illustrat-

ing how the forces on the derrick are transmitted to the ground.

The load on the derrick is the load applied to the hook by the weight of equipment lifted from the well by the lines. The top of the derrick is connected by guy lines to the ground or to the truck and the guy lines act as a restraining pull at the top of the derrick. The wind loads may be exerted in a direction depending on the orientation of the structure with respect to the wind. These forces add vectorially and resolve into a vertical load down the legs of the derrick and a horizontal force which is directed forward of the truck. These forces are exerted against the hinge and against the hinge supporting structure. The forces on the hinge supporting structure are carried in the vertical member 14 and in the diagonal unnumbered member based at 26 (Fig. 6 of Ex. 1). (See Record pp. 212, 277). These loads are transmitted to the frame and to the jacks 28' (see R-3 on Ex. 95) positioned adjacent the bracket 26 (Record pp. 278 & 279).

The load thus reaches the ground through the legs of the derrick and through the hinge supporting structure including the hinge supporting truss members 14 and the angled member connected to the bracket 26, chassis frame member 13 and 11 and the jack 28' to the ground (see Figs. 3, 4, 6 & 10 of Ex. 1). It is to be noted that there are two legs and the cooperating truss and jack members on each side of the driver's position.

2. The Claims

The claims of the patent are set forth verbatim in outline form in Ex. 1A (Record pp. 647-656).

C. THE PROBLEMS SOLVED BY THE PATENT IN SUIT

Note: In the following discussion of the facts of this case reference will be made to the findings of fact (Record pp. 88-90). Finding#2 (Record p. 88) incorporates certain statements of fact which were, by the stipulated Pretrial Conference Order (Ex. 101, Record pp. 57-64), admitted and require no proof (Record p. 57 et seq.). Among these admitted facts (see Article III, Items 1-19, Record pp. 57 to 61) is Item 12 (see Record p. 60) which by reference included certain statements of fact appearing in plaintiffs' Pretrial Statements of Fact (Record pp. 28 to 48) and certain statements in Defendants' Pretrial Opening Statement (Record pp. 49 to 56).

In order to simplify documentation we will employ the following abbreviations: Findings of Fact (F); Pretrial Conference Order (O); Plaintiffs' Pretrial Statement of Fact (PS); and Defendants' Pretrial Opening Statement (DS). Thus (F #2 - O III 12 - PS 14, Record p. 31) will mean Item 14 of Plaintiffs' Pretrial Statement appearing at p. 31 of the Record was incorporated by reference in the Pretrial Conference Order, Item III-12, Record p. 60 and incorporated by reference in Finding #2. And (F #2 - O III 8, Record p. 59) means Item 8 of Article III of the Pretrial Conference Order appearing at p. 59 of the Record was incorporated by reference in Finding #2.

1. The Problem

Prior to 1938 most oil fields were equipped with

conventional permanent derricks located over each well. Such derricks are employed in producing wells to service the wells to repair or clean them out. They are important for such service on wells that employ a pump in the well since such wells require frequent servicing (Record pp. 149 & 150). The provision of such derricks at each well site constitutes a large capital investment (Record p. 150).

In 1939 Franks (Franks Manufacturing Co.), the predecessor of defendant Cabot Shops, Inc., produced a portable derrick mounted on a truck which made possible the servicing of many wells by one unit. This removed a forest of derricks from producing oil fields (Record p. 150).

Exhibit 12 shows such a unit. The unit employed a conventional truck, with the engine in the front and the driver behind the engine. The derrick was a lattice type telescopic derrick. The upper half of the derrick, carrying the crown block at its top, is telescoped into the lower half of the derrick. The derrick with its travelling block and lines rigged for service was carried on the truck with its top ahead of the front of the truck. (Record pp. 150 to 154). The derrick was hinged at the rear of the truck and was elevated by a screw raising mechanism such as is shown in the White patent (Ex. 10) and the Woody patent (Ex. 11) (Record pp. 158 to 160).

To erect this derrick, the truck was backed into location. (Record pp. 154-155). This type of portable derrick is termed a "back-in" unit in this litigation. (F #2 - O III 12 - PS 14a, Record pp. 31-32). The screw, operated to advance a cross head (see 7 of Fig. 1 of Ex. 10, Record p. 658, and 22 of Fig. 1 of Ex. 11, Record

p. 688) along a track or guide which extends beyond the end of the truck (see 8 of Fig. 17, Ex. 10; 15 of Fig. 1, Ex. 11 & Ex. 12), actuated a lever or pitman pivotally connected to the cross head and to the bottom end of the derrick rear legs. The derrick is swung about a pivot positioned on a truss mounted on the rear end of the truck and upon the overhanging track. The winch for actuating the lines of the derrick is positioned between the cab and the rear of the derrick.

The derrick was spotted in location by backing the truck into position. Jacks were placed under the track extending behind the end of the truck. The screw was operated to retract the cross head and the derrick was erected at the rear of the truck. The upper section was then extended from the lower section to operating position. Exhibit 13 shows the Franks back-in unit in position with the derrick partly erected, and Exhibit 14 shows similar unit at a different location, with the derrick erected and operating (Record pp. 135 & 136, 157).

Note: Exhibits 13 and 14 are included by stipulation as physical exhibits.

The above design presented a number of problems which seriously impaired the utility of the back-in unit. The petroleum industry demanded a unit which would free them of these difficulties and various expedients were tried by the manufacturers of portable units in an effort to provide better portable derricks. It was not until Moon's drive-in design was invented that the industry had a design which satisfied their needs.

(a) The Problem of Legality

The tremendous weight of the truck, engine, hoists, derrick and the other components required to be carried by the truck, taken together with the length of the telescoped derrick made the back-in unit illegal for transportation over the highways of many states. Special permits were required which restricted the movement of the truck to the daytime and good weather. Movement at nighttime hours and weekends and in bad weather was prohibited. The restriction on an operator whose well was down and not producing presented a hardship. He had to wait until a proper time to move the truck (Record p. 172).

The Vehicular Code of California as it existed prior to Mr. Moon's invention on December 12, 1946, placed serious limitations on the extent to which the derrick could protrude ahead of the front wheels or bumper, limiting it to three feet, and imposing limitations on the weight which may be imposed on the axles of a truck and also to the distance which a load carried by the truck may overhang the front of the vehicle. (See 1945 Vehicle Code of State of California, Chapter 2, Sections 694(a) and (b); 698(a); 704; 705(a) and (b); 708). (See Appendix) (See also Record pp. 166 to 168). Like provisions were also found in the Vehicular Codes of other states (Record pp. 168-170 & 172).

The back-in units did not comply with the law of such states and could not be made to comply with such laws (Record p. 178).

The following facts are admitted as true and were found by the Court:

"16. One of the difficulties with the back-in units was that they did not comply with highway laws of

the various states in that they could not be built so as to comply with:

(a) The limitations of loading on the front or rear wheels; or with

(b) The overhang requirements, or overall height requirements.

"17. Additionally, the position of the derrick was such that the top of the derrick had to protrude in front of the vehicle for more than was allowable under the Highway laws of many states." (F #2 - O III 12 - PS 16 & 17, Record p. 32). (See also Record p. 599 and Defendants' Answer to Plaintiffs' Interrogatory at Record pp. 81-82 & 177).

(b) Problem of Safety

(i) The Problem of Stability

The back-in units provided an unstable platform for the erection of the derrick. Mr. Moon described by reference the Woody Patent 2,204,716 (Ex. 11) that as the derrick is raised, the back end of the truck is deflected upward to a serious extent. Jacks were provided to stabilize the rear end but the jacks left the ground until about two-thirds of the erection was accomplished (Record p. 162). He testified that this could be so serious as to cause the derrick to overturn and gave one example from his experience of the overturning of a derrick (Record p. 163).

The problem of the instability of the back-in design was also present when the derrick was erected. According to Mr. Woody, Chief Engineer of Defendant Cabot Shops, Inc., the derrick, when extended 96 feet into the air and the spread of the hinge point, where

the derrick was hinged to the rear of the truck, being of the order of 31½ inches, "didn't give very much stability to a 96 foot structure" (Record p. 609). This was particularly true where it had to receive wind loads and also when it had to support the weight of pipes stacked on the derrick (see the stacks in Ex. 14). Mr. Woody testified that there was insufficient margin for this purpose in the back-in unit (Record p. 615).

(ii) The Limiation of Upward Vision

The long overhang of the derrick ahead of the driver of the back-in unit presented a hazard since it limited the upward vision of the driver. Mr. Moon gave an illustration of the seriousness of this hazard by reference to an accident he observed with the unit shown in Ex. 12. Because the driver's upward vision was impaired, he could not gage the clearance under a bridge and jammed the truck under the bridge (Record pp. 147-148).

(iii) The Safety of the Driver

It will be seen that in the back-in unit (Ex. 12) there is a pair of posts positioned on the bumper which supports the front end of the derrick. It is termed a "headache post." This and the cab is the only protection that the driver has. This structure is not sufficiently strong to protect the driver if the vehicle were moved while the derrick is erect or partly erect, nor does it afford much protection in case of an accident (Record pp. 255, 258). This evidence was uncontradicted. One can therefore understand the wry term "headache post," remembering that the derrick weighs around 9,000 to 10,000 pounds (Ex. 1, col. 1, lines 37 et seq.).

(c) The Problem of Spotting

In order for the servicing unit to operate properly it is necessary to spot the truck with considerable accuracy in order that the top of the derrick when erected and extended be positioned so that the blocks for the derrick lines be centered within an inch or two of the center line of the well (see Ex. 14; Ex. 1, col. 1, line 49 to col. 2, line 6). If this be not done when the load is lifted an eccentric load is placed on the top of the derrick. If these are sufficiently large, they will load one side of the derrick more than the other side. In addition this would cause excessive line wear (Record pp. 155-156).

Realizing that in ordinary oil field practice expert truck drivers are not employed and ordinarily the well puller drives the truck, such accurate spotting is a difficult job for such drivers and requires time and depending on the location, the assistance of spotting aids (Record pp. 154-156, 434).

2. Moon's Solution of the Problem of the Portable Derrick

(a) The New Combination of the Components of a Portable Truck Mounted Derrick to Produce a Drive-In Unit

(i) The Abandonment of the Conventional Truck

The traditional approach which the industry had always used in designing a portable derrick which was hinged to the vehicle was to start with a conventional truck or semi-trailer unit such as is generally employed in the hauling industry.

Mr. Moon determined that if he is to design a legal unit which would be more easily spotted with improved stability and which would provide safety for the driver and clear vision for the driver, he would have to abandon the traditional approach and start with an entirely new concept. That this is a basic difference is admitted and incorporated as a finding by the Court:

> "16. Conventional trucks as used in the construction of back-in units in which the derrick was carried to be hinged on the rear of the vehicle were not suitable to carry heavier derricks of the telescopic type. Not only were their structural characteristics insufficient, but the weight distribution was also unsuitable for engineering and legal reasons; the legal reasons being the necessity for compliance with the various highway codes of the various states. In building the drive-in units in which the derrick is hinged at the front of the truck it became feasible to custom build the unit to obtain a weight distribution which would be desirable and which would satisfy both engineering and legal requirements for such structure." (F #2 - O III (16) Record p. 60-61)

(ii) The Arrangement of Components and the Distribution of the Weight Thereof

Mr. Moon testified that by abandoning the conventional truck design he was able to mount the winch on the chassis. (Record pp. 193 & 194).

By positioning the derrick so that it is hinged at the front of the truck and by positioning the weight of the motor and winch behind the cab, a weight distribution was achieved to give a legal loading on the front and

rear wheels, while the front overhang could be made to comply with the laws. When the conventional truck employing the Woody design, formerly employed by the appellees in their back-in units, the stacking of the screw raising frame and the winch frame on top of each other consumed space sorely needed to make the unit legal. (Record pp. 193 & 194).

Mr. Woody stated that it was impractical to make the back-in unit legal. The only way service units would be made legal was by abandoning the conventional truck and by going to the drive-in principle. (Record pp. 600, 601, 610-611, 615; F #2 - O III (16) supra)

(iii) The Abandonment of the Screw Raising Mechanism Used in the Truck Mounted Back-In Unit

In the back-in unit a raising device was used in which the erecting jack is hinged to the end of the derrick and at the overhang of the truck behind the rear wheels (see this Brief pp. 11 to 14). Mr. Moon testified that in his original concept he had at first intended to employ such a screw derrick raising mechanism and found that it was not practical in his drive-in unit, and he had to abandon it (Record pp. 183 & 184).

Mr. Woody testified that it was not possible to employ in the drive-in design, the screw raising mechanism of the Woody patent (Ex. 11) without substantial modification (Record p. 618).

This led Mr. Moon to choose the hydraulic jack as an elevating mechanism. This fortunate choice resulted in an improvement in the stability of the structure.

(iv) The Hinging of the Erecting Jack Between the Front and Rear Wheels

In the drive-in device, the erecting jack 27 (see Fig. 3 of Ex. 1, and this Brief, p. 11) is hinged to the main chassis between the rear and front wheels near the front end of the truck. In the back-in type a force is exerted during lifting which bends the rear end of the truck frame away from the ground and lifts the supporting jacks from the ground. (See this Brief, pp. 20-21). The modification introduced into the drive-in unit causes the forces to be downward in balanced position between the lever hinge and the derrick hinge without introducing excessive bending in the frame. (See this Brief, pp. 12-14).

It will be observed, as is described previously in this brief, that during the raising operation up to a point where the center of gravity of the mass of the derrick is on a vertical line over the derrick hinge point on the derrick hinge supporting framework, the thrust of the raising load is downward on the hinge of the jack on the chassis frame and through the jacks 27 and 28' into the ground. When the load passes over this center, the force exerted by the derrick load on the hinge support is also down and is balanced by the weight of the truck. At no time is the chassis placed into an upward deflection to lift the supporting jacks off the ground as are the jacks at the end of the truck in the back-in unit during raising.

The result is a stable platform, in the case of the drive-in unit, during raising whereas in the back-in unit, the platform is not stable.

Mr. Moon testified in detail as to the instability of

the back-in structure and the stability of the drive-in structure. (See this Brief, pp. 20 and 21).

This was admitted by Mr. Woody who testified that the drive-in unit gave a stable structure so that overturning could not occur. This advantage was not present in the back-in unit. (Woody Deposition, pp. 609-610, 615, 617-618).

The drive-in unit satisfied "engineering and legal requirements" while the back-in unit did not, as is admitted by the appellees and found by the Court (see this Brief, p. 23).

(v) Constructing the Hinge Supports to Extend to Each Side at the Front of the Vehicle

A further modification of the elements was made by providing in the front of the truck a hinge support so constructed to be positioned to each side of the driver's position. This structure provided a portal through which the driver could see as he moved into position. This structure also provided cooperating truss elements to cooperate with the legs, the chassis and the jack to carry the load to the ground. This load transference was through structures which were positioned to each side of the driver's position at the front of the truck. (See this Brief, pp. 14 and 15).

By arranging the legs and the hinge supporting structure (Column 14) and the diagonal cross bracing (unnumbered) terminating at the bracket 26 (Figs. 1 & 3 of Ex. 1), the loads are carried around the driver to the ground and no structure is in front of the driver

to obscure his vision. He has a clear portal through which he can see where he is going. In contrast, the driver of the back-in unit has his view of the spotting location blocked. His problem of spotting is thus very much greater than that faced by the driver of a drive-in unit. (See this Brief, pp. 9, 12, 21).

(vi) The Provision to Make the Hinge Support a Protective Framework for the Driver.

This hinge supporting structure in the drive-in unit also has the advantage in that it acts as a protective framework for the driver (Record pp. 255-256). Contrast this with the situation in the case of the back-in unit where no such safety feature is available. (See this Brief. p. 21).

Mr. Woody stated that the hinge supporting structure in the drive-in unit was a safety feature for the driver in case of an accident, such as a turnover (Record p. 616).

(vii) The Provision of the Hinge Support at the Front of the Truck where also the driver's position is located permits the hinging of the derrick above the driver's position so that the lower end of the derrick protrudes ahead of the truck.

This arrangement in cooperation with the hinging of the erecting jack provides for stability in raising the derrick (see this Brief, pp. 11, 12 & 24), as well as providing a protective framewrok for the driver and a clear view ahead.

It permits the positioning of the engine and winch on the truck to produce a distribution of the load

on the axle and wheels, to meet the requirements of the vehicular laws (see this Brief, p. 19 & 20).

It also permits the arrangement of the derrick so that the front overhang of the derrick meets the requirements of the vehicular laws.

This was accomplished by making the front legs of the derrick and its extensions so that the extension could be slid back for a distance to make the front overhang meet the legal requirements (see Record pp. 198-199, and this Brief, pp. 19 & 20). In California this limited the front overhang to 3 feet (see this Brief, pp. 19 & 20). The drive-in units thus could be made to meet the front overhang requirements of the laws of the various states (Records pp. 295, 601).

The weight distribution and the front overhang arrangement of the derrick resulting from hinging the lower end of the derrick at the front of the truck above the driver's position resulted in a unit which complies with the vehicular laws. (See this Brief, pp. 23 and 24).

(b) The Results Produced by the Drive-In Unit

(i) The Legality of the Unit

As stated previously the drive-in principle permitted the construction of a truck-mounted portable derrick which was legal under the vehicular laws of the various states such as to weight and front overhang. The back-in unit has not and could not be made legal and thus was excluded from the public roads unless specially permitted and then under serious restrictions. (See this Brief, p. 19).

(ii) The Stability of the Structure

The drive-in principle resulted in a structure which was more stable during erection of the derrick and in use than was the case in the back-in units. (See this Brief, pp. 20 & 25).

(iii) The Safety of the Driver

The drive-in principle provides a protective framework for the driver carrying the hinge on a framework that carries the load down to the ground on each side at the front of the truck. (See this Brief pp. 20 & 21).

(iv) The Ease of Spotting

The hinging of the derrick adjacent its lower end above the driver's position and the positioning of the load supporting structures to each side of the front of the truck provides a portal through which the driver has a clear view ahead and facilitates spotting of the derrick. He could drive directly into location and did not require the aid of other spotters for this purpose. (See this Brief, pp. 9, 12, 21).

That the drive-in principle facilitates the spotting of the derrick and that this is a marked improvement over the back-in principle is admitted and established by the evidence. As was discussed above, the accurate spotting of the truck is of prime importance and the placing of the back-in unit was a time-consuming and difficult job.

Mr. Woody testified that because the driver of the drive-in rig can see the point where he is driving he need not rely on signals from another man (Record p. 613).

Mr. Smyser, who is in the business of operating servicing units and had previously been a salesman of back-in units, gave examples from his experience of the difficulty and time-consuming nature of the spotting of the back-in units and of the ease and speed of spotting and of erecting the drive-in units (Record pp. 434 & 437). He stated that he operates drive-in units, and operators of the back-in units just can't compete with him and added that he has revolutionized the business in his area (Record pp. 435-436).

Mr. Hopper, who is a manufacturer of drive-in units, testified that the drive-in units have replaced back-in units. Mr. Hopper's company sells back-in units, pole masts, skid-mounted units, as well as drive-in derrick units. The drive-in units are sold for from $40,000 for the smallest to $100,000 per unit for the largest drive-in unit (Record p. 467). The drive-in units are more costly than the back-in units of comparable size (F #2-O III 19, Record p. 61). The catalog of Mr. Hopper's company is in evidence as Exhibit 47. Mr. Hopper stated that his sales of drive-in units in California constitute 80% of the total sales of all types of transportable units, including back-in, drive-in and skid-mounted units, and throughout the United States the drive-in unit accounts for 50% of the sales of all types, including back-in truck units, semi-trailer units and skid-mounted units; that is, the drive-in unit outsells every other type of unit (Record pp. 468-469).

Mr. Hopper stated that one of the reasons why the more costly drive-in units outsell the back-in units is the ease of spotting of the unit (Record pp. 469-470).

That these and other advantages and utilities of the drive-in unit are a material contribution to its value as an improved portable servicing unit and marks the drive-in unit as an important contribution to the art of portable oil field servicing derricks, appears fully supported by appellee's admissions and by the stipulated facts of the Pretrial Conference Order which were incorporated as findings by this Court.

Appellee Cabot Shops, Inc., in its 1956 catalog (see Ex. 55, pp. 1803, 1804 and 1806), stated:

On Page 1806 the following appears:

> "Its main features are that it is an extremely compact package which can be speedily moved from one site to another; has unusual maneuverability and hence can be set up at the well in a matter of minutes; and can be operated both expeditiously and effectively on a pulling job with a high degree of safety.***
>
> "With the advent of deeper footage to service, and tighter highway regulations, Frank's finest engineering talent was sent into the field and after long consulations and observation with experienced oil company production technicians, designed the Clipper. It was designed primarily for servicing and workover operation and secondarily, but without sacrificing speed or safety, for over-the-road travel as a complete strung-up unit. All non-essentials were eliminated and the maximum in performance over the longest period with the highest safety factor obtainable provided.
>
> "From the beginning of the development of the Clipper line Franks engineers kept in mind a

better approach to highway legality, through improved weight distribution.

"A singular advance in design was accomplished when provision was made so that the Clipper could be headed into a well location instead of backing in. This feature provides perfect 'spotting' or alignment over the well immediately, even on hillsides and tight locations. * * * "

On Page 1804 the following advantages are listed:

" * * * These are the Franks-pioneered self-propelled integrated units that head into the well location instead of backing in. Features:

"Latest approach to highway legality and perfect weight distribution.

"Easier spotting even in close quarters, hillside locations and difficult terrain, as it heads into location instead of backing in.***

"Cab remote from engine and protected by main frame structure giving complete driver safety. * * * "

"Stabilized for heaviest pulls with wide spread derrick outriggers. * * * "

These advantages are summed up in the facts admitted to be true in the Pretrial Conference Order, Item III (12) by reference to Item 55 H-J and L and adopted as Findings of Fact (F #2 - O III 12 - PS 55 A - D & H - J and L, Record pp. 45-47).

Item 55:

"These 'Clipper units' all have the following characteristics also possessed by the structure described in the Moon patent: * * * (See Items A - D, H - L)

"H. The position of the hinge and the location of the derrick erecting mechanism is such that the mechanism transmits the erecting load to the chassis between the front axle and the rear axle.

"I. The load of the derrick as it is erected and moves towards its perpendicular position is transmitted to the chassis to the ground and produces a load distribution resulting in a chassis frame deflection which is well within the allowable strain in the structure.

"J. By positioning the engine at the rear of the vehicle and hinging the derrick at the front of the vehicle, the center of mass of the structure is moved towards the rear side of the center line of the vehicle, thus giving to the drive-in unit stability during raising and in use.***

"L. The arrangement with the motor at the rear of the truck and with the crown of the derrick to the rear of the truck and with the cab at the front of the truck has also the following advantages:

(a) By placing the driver next to the base of the derrick, he can spot the derrick by driving directly to the desired location;

(b) The arrangement of the parts makes it possible to limit the front leg extension to any desired amount in front of the vehicle by providing cooperating structure to carry the load to the ground;

(c) Room is provided on the truck for the hoist and also room for positioning the erecting jack and room for its rotation to errect the derrick;

(d) The arrangement provides room for positioning the major weight on the rear wheels and provides room for shifting the motor and hoist so as to place the right proportion of the weight on the rear and front wheels."

D. APPELLEES' DRIVE-IN UNITS

The issues presented for trial and stipulated in the Pretrial Order specify the appellees' units as those shown in Appellees' 1956 catalog (Ex. 55) at page 1810 and in the 1957 catalog (Ex. 54) at pages 1883, 1884 and 1885. (The photographs of these units as they appear in the catalogs are reproduced on a reduced scale in the Appendix.)

The Court also found as a fact that the appellee's drive-in units were correctly shown at said pages and also correctly shown in Exhibits 57, 59, 93, 94 and 95 (F #10, Record p. 89).

Exhibit 59 is reproduced in the Book of Exhibits at page 773. Exhibits 57, 93, 94 and 95 are included as illustrations in the Appendix by photographic reduction.. Exhibits 54, 55, 57, 93, 94 and 95 were included in the Record by stipulation as physical exhibits.

Exhibit 57 is a reduced print of Frank's Drawing No. 100-075, Exhibit 56 (Woody Ex. 3; see list of Exhibits, Ex. 99, reproduced in the Appendix, and Record pp. 343, 345 and 348).

Exhibit 59 is a reduced print of Drawing No. 41-129 (Ex. 58) which was Exhibit 4 of the Woody deposition (see Ex. 99 and Record pp. 343, 345 and 348).

Mr. Woody stated that drawing 100-075 (Ex. 56) shows the unit shown on page 1883 of Exhibit 1 (now Ex. 55). (See Record p. 517). He also stated that drawing 41-129 (Ex. 4, now Ex. 58) was a drawing of the unit shown on page 1884 of Exhibit 1 (now Ex. 55). (Record pp. 517 & 589).

Mr. Woody testified that the hinge is supported on the chassis of the vehicle in Exhibit 56 (Woody Ex. 3) similarly as it is supported in Exhibit 58 (Woody Ex. 4) and that although the details vary, essentially it accomplishes the same thing (Record pp. 590 & 591).

In the following discussion we will refer to the numbered and lettered parts of the Exhibits 57, 59 77 and 95. The Exhibit 59 is in the Book of Exhibits, Vol. III, of the Record at p. 773. We are including a reproduction of Exhibits 57, 77 and 95 on a reduced scale in the Appendix.

I. The Construction of Appellees' Drive-In Unit

In this section of the brief we will discuss the construction of appellees' drive-in unit. In doing so we will analyze the "means" in the same order as we have used in discussing the specification of the patent in issue. We shall at a later place in the brief show that not only are the "means" the same, but the same results are obtained by the appellees' drive-in units as by the patented drive-in unit and in the same way. No recourse to the Doctrine of Equivalents is necessary to "read" the claims on the accused structures. Appellees' structure and the structure as illustrated in the drawings of the patent are not different in any substantial degree and act in the same manner to

produce the same results as the equivalent structures illustrated in the drawings of the patent in suit.

(a) The Chassis and Location of Engine and Winches

The chassis as is the case in the patent (Ex. 1) is formed of longitudinal frame members (1 on Ex. 57) and carries an engine at the rear of the chassis and a cab at the front of the chassis with the winches placed between the cab and the engine. In appellee's drive-in unit, shown in Exhibit 57, the front wheels are mounted on a bogie which is turned as a unit for purposes of steering the truck (Record pp. 527-531). While in the form shown on Exhibit 59, the front wheels are mounted in pairs on separate axles which are carried on the front bogie with the wheels steerable (Record pp. 589-590).

(b) The Driver's Position

The driver's position is in the cab at the front of the truck (Record pp. 533-534). The construction is such that the hinge support framework and the derrick structure and legs do not obstruct the view of the driver. This will be discussed below. At this point it is sufficient to refer to Exhibts 57 and 94 to show how the hinge suporting framework is designed to create a portal to give the clear view ahead (Record p. 542). That is a safety feature. (See Record pp. 615 & 616, and this Brief, p. 29).

(c) The Derrick and Derrick Hinge

The derrick is a telescopic derrick composed of an upper and a lower section (Record pp. 534-535). They are telescoped when at the rest position and may be extended when the derrick is in erect position. The

derrick is formed of a series of panels or bays (Record pp. 535-537). (See bay A between cross members 22 cross braced by 21 between the derrick leg members 19 and 20 on Ex. 57 in the Appendix).

The derrick employed is a conventional telescopic derrick modified by omitting the cross bracing between the front legs at the pedestal thereof (see letter A of Ex. 81, originally Woody Ex. 28, See Appendix). The following testimony by Mr. Woody states the relationship of the derrick legs to the driver's position:

"Q. We will mark this exhibit plaintiffs' Exhibit 28. Mr. Woody, in common with all of the derrick structures to which you have testified heretofore, is it true that they, as well as this, show an unbraced section between the front legs of the derrick, between the pedestal under the front legs there, a cross member which I will mark as A on Exhibit 28, is that correct?

"A. That is correct. In other words, you mean that there is a window there so that the legs can straddle.

"Q. Yes, and a person inside the cab can look straight through?

"A. They could, although it is to straddle the frame of the structure generally. This same derrick structure may be used on several units, and the clearance is necessary to straddle the frame. It is a construction we have used for years." (Record pp. 594-595).

The derrick is mounted on the chassis by a frame-

work which carries the hinge members, formed of two split bearings 24A in which the bearing shaft 24, connected the leg members 20, is journaled with its axis at 26 (Record pp. 538-540). The truss 23 is carried on the chassis frame. The truss as shown on the front view of Exhibit 57 is composed of two acute triangles 23 and 23c whose bases are carried on the chassis and whose apexes carry the bearings (Record pp. 542-543). This forms a frame for the front window of the cab (Record p. 542). The cross bracing members 23E extend along the side of the cab at an angle from the derrick hinge to the chassis, shown on the side view of Exhibit 57, through which load is transferred to the chassis, as will be discussed more fully below (Record p. 544). This same structure is shown on Exhibits 93 and 94. A similar construction is employed in the form shown in Exhibit 59 (Record Vol. III, p. 773; see pp. 39, 43-46 of this Brief). In Ex. 59 the hinge is shown at 226. The hinge supporting truss is shown in side view at 226A. (Record p. 591). This structure is also shown on Exhibit 84 (Record Vol. III, p. 774) and on Exhibit AB (Record p. 990) although the angle from which the photograph is taken distorts the relative location of the truss members and the cab front window. See in this connection Exhibit 57 and Exhibit 94 (in Appendix) and the picture in the lower left view of p. 1812 of Exhibit 55 (Record pp. 566 & 567).

The hinge is positioned above the driver's head (Record p. 551-552). The back legs of the derrick, when the derrick is in rest position on the truck, are above his line of vision with one leg one side of the cab and the other on the other side of the cab (Record p. 552).

The hinge is positioned between the front end of the chassis and the front axle. In the form of Exhibit 59 the hinge 226 is ahead of the line 202A which is the vertical through the axle of the forwardmost wheels 202A of the bogie (Record pp. 589 & 592) and is rearward of the front of the chassis (Record p. 592). This is also incorporated in the form shown on page 1884 of Exhibit 54 (Record p. 593; see Appendix).

In the form shown in Exhibit 57, the hinge point 26 is behind the front of the chassis (Record p. 546) and in front of the axle 6 of the rear front wheel axles and ahead of the center line of rotation of the whole bogie unit, the wheels not being individually steerable (Record pp. 529-532). This construction is the same as that appearing on page 1883 of Exhibit 54 (Record p. 517).

Mr. Woody testified that the form shown on page 1885 of Exhibit 54 is also shown on Exhibit 60 (Record pp. 518 & 519; see Appendix). Referring to Exhibit 60, it will appear that the hinge is between the front of the chassis and the front axles.

The relation of the location of the cab and of the derrick hinge varied, as will be seen by reference to Exhibits 59 (see Record Vol. III, p. 773), 57, page 1810 of Exhibit 55, pages 1883, 1884 and 1885 of Exhibit 54; Exhibits 60, 62, 63, 65, 93, 94 and 95 in Appendix. We will discuss this matter more fully below.

(d) The Transverse Extent of the Derrick Legs and Hinge Supporting Structure

The derrick structure has four legs. The two legs which are the two top legs, when at rest on the truck, form the two front legs when the derrick is erected

ahead of the cab. The two bottom legs are made sectional, with a hinged section termed an outrigger, which extends from the hinge to the ground. They are omitted from the drawing of Exhibits 58 and 59 (see Record p. 560).

(i) The Outriggers

The outriggers are in the form of a collapsible truss connected to a jack which forms an extension of each of the rear legs when the derrick is erected. The truss is hinged to the chassis so that when the derrick is at rest on the truck, the outrigger may be folded back against the side of the cab.

Mr. Woody (Record p. 560-564) described these outriggers by reference to Exhibit 76 (which was Woody Ex. 24); a reduced print of this Exhibit is in evidence as Exhibit 77 (see Appendix). These outriggers are also shown in Exhibits 93, 94 and 95 (see Appendix) and appear in Exhibit 84 (Record p. 774 and AB Record p. 990).

The outrigger is composed of a jack connected by a truss to the chassis, the truss is composed of an angular member extending from a point on the hinge support framework adjacent the hinge point downward at an angle to the horizontal until it meets the outrigger jack marked 101 on Exhibit 77. A second truss member marked 104 on Exhibit 77 connects the jack 101 and hinge support frame where it is hinged at 102. This structure also appears on Exhibit AB, where it is seen as two tubular members which form a triangular structure joined to the jack at the apex. The outrigger jack is also braced to the chassis behind the cab by a brace 103 of Ex. 77, which is split so that

it can bend at a mid point. This appears on Exhibit 84 (Record Vol. III, p. 774) where it is seen as the two parallel members extending from the jack to the chassis frame rearward of the cab. The hinge is in the middle of the brace. The outrigger is thus hingedly mounted so that by collapsing the brace at its midway hinge, the outrigger may be folded back after the derrick is retracted and its load removed from the outrigger.

When the outrigger is in position, the brace members connecting the outrigger jack to the hinge supporting framework and to the chassis behind the cab form a truss which stabilizes the derrick (Record pp. 561-564).

We shall discuss below the function of the hinge supporting framework and the outriggers in cooperation with the legs as load carrying members.

(d) The Derrick Erecting Means

The derrick is erected by means of an extensible jack hinged at its lower end on the chassis behind the front wheel axles and behind the cab. The piston rod of the jack is hinged to the lower end of the derrick (see Ex. 57, 59, 93 and 95; Record pp. 571-573).

2. The Results obtained by the Appellees' Drive-In Unit and the Way these Results are obtained

We will first discuss the way in which the appellees' structure operates for the purpose of showing how this "way" is the same "way" as that employed by the patented structure. We will then discuss the results obtained to show that the same results obtained by appellants' patented structure.

(a) The "Way" Appellees' Structure Operates

(i) Over-the-Road Position and Spotting of the Derrick

In the roadable position the derrick is retracted and rests on the truck, with its top end at the rear of the truck. The derrick ends in extensible legs which are retracted for transportation on the road, and the legs are extended when the derrick is erected. They can be extended as far as needed (Record pp. 578-579).

In this position the driver has a clear view ahead due to the portal in the hinge supporting framework and to the positioning of the legs on each side of the driver's position so that nothing obstructs his view ahead. He may drive directly to the location and needs no aid to spot the derrick accurately (Record p. 613 & this Brief pp. 9, 12, 21 & 29).

(ii) The Erection of the Derrick

Mr. Woody described the operation (Record pp. 566-579). When the derrick is spotted, jacks normally carried folded under the chassis are placed under the chassis, one under and adjacent to the erecting jack hinge at the chassis (see jack 33 on Ex. 57 in Appendix; Record p. 569). The outriggers are placed in position and the outrigger jacks adjusted (Record p. 570). After the jacks are placed and tightened, the ram of the erecting jack is extended and the jack pivots on its hinge on the chassis and the derrick (Record p. 571).

The following balance of forces is obtained. Mr. Woody explained this by reference to Exhibit 57.

As the ram is extended and the derrick starts to lift off its support there is a vertical upward force exerted on the derrick hinge and on the derrick hinge support and a downward force at the hinge connection between

the erecting jack and the chassis (Record p. 572). The chassis between the erecting jack hinge and the front of the chassis is in bending (Record p. 576).

When the derrick approaches the vertical, the upward force on the derrick hinge changes to a downward force. This load is absorbed in the hinge supporting framework and transmitted to the chassis (Record p. 574). The downward thrust on the derrick hinge axis is also distributed to the outriggers (Record p. 577).

The derrick proceeds over center to its vertical position where it has some forward tilt when erected (Record p. 577). The front leg extensions are screwed down to place the front legs on the ground (Record p. 578). The derrick is then extended (Record p. 580). The balance of forces obtained in Appellees' Drive-In Derrick during erection is the same as obtained in the patented Drive-In derrick. The "way" Appellees erect their derrick is the same "way" as the patented derrick is erected.

(iii) Transference of Derrick Load to the Ground

The load on the derrick during operation is transmitted through the legs to the ground directly through the f r o n t legs and through the rear legs via the hinge supporting truss positioned in f r o n t of the driver, and via the angle brace member positioned alongside the cab and to the c h a s s i s and to the jack underneath the chassis adjacent the h i n g e. The load is also transmitted to the outrigger jack through the truss joining the outrigger jack to the hinge support frame and to the chassis. The load thus goes to the ground through the front and rear legs,

one pair on each side of the driver's position, and through the cooperating members (the hinge support framework and the outriggers), one set on each side of the driver's position.

Mr. Moon described the action of the structure shown on Exhibit 95 (see Appendix where the drawing is included on a reduced scale), found by the Court to correctly represent appellees' structure (F #10, Record p. 89).

Mr. Moon (Record pp. 277-281) drew a load diagram on Exhibit 95 illustrating the direction and magnitude of the various components of the load on the derrick. The direction of the load component is illustrated by an a r r o w and its relative magnitude by the length of the arrow. Thus L1 shows the magnitude and direction of the load on the derrick line, i.e., connected to the hook. The load introduced by the "fast line" load, i.e., the pull of the line running from the drum to the pulley at the top of the derrick to lift the block, is represented by the arrow L3. The guy line which is connected to the top of the derrick and to the end of the truck, which acts to help hold the mast erect, introduces a further force. The resultant of these forces is a force which in direction extends from the center of the pulley at the top of the derrick parallel to the angle of tilt of the derrick. Opposing the resultant of these forces is the reaction at the bottom of the legs at R1 which opposes the force down the front legs (see L4) and a reaction R2 opposing the downward force on the outrigger jack (see L8).

The forward tilt of the mast causes a horizontal force against the support at the bottom of the front

leg and at the derrick hinge. This force is resisted by an opposing reaction at R5 and R4 which balances these forces. These horizontal forces and vertical forces result in a force L6 which passes through the angular frame member between the derrick hinge supporting structure and the frame and which passes alongside the cab. This force results in a downward force against the chassis frame which is opposed by the reaction R3 where the load goes into the ground. Appellees Drive-In derrick thus transmits the derrick load to the ground in the same "way" as does the patented Drive-In derrick (Record pp. 277-281). Mr. Woody's analysis (Record pp. 582-588) confirms Mr. Moon's explanation.

The appellees' Clipper thus includes a derrick with two front and two rear legs erected adjacent the front end of the chassis, the legs of the derrick are spaced apart with respect to the chassis for a distance greater than the transverse extent of the driver's position. The legs of the derrick are positioned, a pair (front and back legs) on one side of the driver's position and a pair (front and back legs) on the other side of the driver's position. There are cooperating members which cooperate with the legs to carry the load to the ground on each side of the driver's position, these members being located on each side of the driver's position.

(b) The Results Obtained by the Appellees' Structure

(i) The Appellees' Structure, like the Patented Structure, yields a Unit which is legal

This results from the permissible distribution of the weight by the arrangement of the engine, winch and derrick (see this Brief, p. 28, and F #2 - O III

16 pp. 60-61, 12 - PS 55J, Record p. 46). By hinging of the derrick at the front of the chassis, the distance which the derrick protrudes ahead of the chassis could be limited to the desired amount.

(ii) Appellees' Structure, like the Patented Structure, yields a Stable Unit

The hinging of the erecting jack between the rear and front wheels and the hinging of the derrick on a hinge support adjacent the front of the derrick produces a balance of forces which yields a stable platform during erection and in use.

(iii) Appellees' Structure, like the Patented Structure, may be easily spotted

The provision of a derrick hinge support which carries the loads to the ground on each side of the driver, without parts which obstruct the driver's vision, provides a window through which the driver may see where he is going. By arranging the derrick so that it could be erected at the front of the vehicle and giving the driver a clear view ahead, the spotting of the derrick is greatly facilitated.

(iv) Appellees' Structure, like the Patented Structure, provides a Protective Framework for the Driver

This also permitted the use of the hinge support as a protective framework to provide for safety of the driver.

These results which appellees' drive-in unit had in common with the patented structure are admitted by appellees, and were found as a fact by the Court (F #12 O III 12 PS 55, Record pp. 45-47; F #12 O III 16, Record pp. 60-61).

III

THE QUESTION INVOLVED IN APPELLANTS' APPEAL

A. Do the claims "read" on appellees' drive-in unit in structure, function and results and thus infringed?

1. May the limitations of claim 1 with respect to the entrance of the driver's position into the free area between the rear legs be introduced into claims 2-5 where they do not appear.

B. Is recourse to the Doctrine of Equivalents necessary in determining whether or not appellees' structures infringe the patent in suit?

C. What is the range of equivalents to which the patent in suit is entitled?

D. Does the prior art so narrowly limit the permissible range of equivalents as to exclude appellees' structure?

E. Although no findings or conclusions were made by the Court below on the issue of file-wrapper estoppel, it was argued at the trial (Record pp. 498-507). The failure of the Court to find file wrapper estoppel is significant. This issue, however, presents the question as to whether the Court's judgment dismissing the complaint may be supported by such file wrapper estoppel as limiting the claims so as to make the appellees' device non-infringing.

This issue, then, presents the following questions:

(a) Are the claims so ambiguous as to require recourse to the file wrapper for their proper interpretation?

(b) Has the appellee the burden of proving the existence of a file wrapper estoppel to limit the claims to a scope such as to exclude the appellees' structures?

(c) Are the claims limited by amendments made to the claims so that in order that appellees' drive-in units infringe the claims, the claims must be expanded to include that which was abandoned by such amendments?

(d) If the claims 2-4 are so limited by these amendments, does claim 5 contain these limitations?

(e) If the claims are limited by amendment so that they define a drive-in portable derrick different from Appellees' Drive-In portable derrick, is this difference such but that by a proper application of the Doctrine of Equivalents, the appellees' structures infringe such claim or claims?

IV

SPECIFICATION OF ERRORS

A. THE COURT ERRED (Record p. 90)

1. The Court erred in finding that the appellees' drive-in units do not infringe the claims of the patent in suit.

2. The Court erred in concluding that in view of the state of the prior art the scope of the invention should be closely limited and so that the claims are entitled to a very narrow range of equivalents and the said range of equivalents does not include the accused devices of appellees.

3. The Court erred in concluding that none of the claims of the patent in suit are infringed by the drive-in units of appellees.

4. The Court erred in concluding that the appellants are not entitled to carry the effective filing date of the patent in suit to February 24, 1948, the filing date of application Serial No. 10,412 (Ex. 46).

5. The Court erred in its judgment that (a) none of the claims of the patent in suit have been infringed by appellees, (b) dismissing the complaint and (c) denying relief to appellants.

Point No. 4, in that it relates to the issue of validity, is not discussed in this brief, since no issue of validity arises upon appellants' appeal and is material only in the event Defendant-Cross Appellants urge their appeal on the issue of validity. We will reserve discussion of this point.

V

ARGUMENT

A. SUMMARY OF ARGUMENT

We have shown in the previous portion of the brief that the appellees' structure and the patented structure in their manner of operation, the results accomplished, and in the means by which the results are obtained, are identical. The difference, and the only difference, between the appellees' accused device and that illustrated in the drawings of the patent lies in this: That in appellees' device the cab is moved to the rear of the chasis a few inches, and in that the lower portion of the rear legs are spread apart by the use of outriggers and do not come straight down as in the illustration shown in the figures of the patent. In all other essential respects, the structures are identical.

These differences do not change the results obtained or the way these results are obtained.

The description of the invention in the specification does not limit the invention to the precise form of the invention illustrated in the drawings of the patent, and the claims 2-5 clearly and unambigously include the accused drive-in units.

The Trial Court was clearly wrong in its finding of non-infringement and clearly wrong in its conclusion of law that: "In view of the prior art the scope of the invention should be closely limited and so that the claims are entitled to a very narrow range of equivalents and said range of equivalents does not include the accused devices of defendants." There is no evidence in this cause which would support such

a conclusion. The appellees have never made any such contention, and it was not an issue specifically included in the Pretrial Order among the issues to be tried. Even a casual reference to the prior art in evidence will show that none of the art having a date prior to the date of the invention shows a portable telescopic four-legged derrick hingedly mounted at the front of the chassis where is also the driver's position, with the hinge being above the driver's position. Certainly the accused drive-in unit is as remote from the prior art as is the patented drive-in unit.

With regard to the interpretation of the claims, it is the position of the appellants:

That the appellees' drive-in units differ in form in immaterial details from the structure shown in the drawings of the patent, and that the form shown in the drawings of the patent is not a matter of substance to which the claims are limited;

That the claims of the patent read upon the structure of the appellees in terms, function and results. Recourse to the Doctrine of Equivalents is unnecessary;

That the prior art does dot disclose any drive-in unit having the structure or function which gives the results of the patented and appellees' drive-in units. The Trial Court was clearly wrong in concluding that the prior art limited the claims so that appellees' drive-in units were outside the range of equivalents to which the patent was entitled;

That the history of the prosecution as evidenced by the file wrapper do not restrict the claims to forms of Drive-In Units which do not include Appellees' Drive-In derricks;

That even if the claims of the patent be restricted, as was contended by appellees at the trial, contrary to the wording of claims 2-5, by reason of file wrapper estoppel, to a structure in which the legs straddle the cab in the sense that the cab is in the space between the rear legs of the derrick, the appellees' drive-in derricks are the equivalent thereof and the claims must be interpreted, to embrace this equivalent. In so doing the appellants are not expanding the claims as allowed to be the claims as rejected.

It is to be noted that there is no dispute in the evidence made as to the nature of appellees' structure. The admissions made in the pretrial order have established the accused structure. The prior art is in evidence and there is no dispute in the record as to the showing in the prior art except in the case of the advertisements (Exhibits M-R) which are not part of the prior art on the issue of infringement.

In such case the finding of fact of infringement is not one of those findings of fact which may not be disturbed unless clearly erroneous. The question of infringement in this case is a question of law and involves the resolution of the following legal issues:

Did the Court apply the Doctrine of Equivalents correctly?

Did the Court apply the proper rules of construction of the claims in finding non-infringement?

See:

Kemart Corp. v. Printing Arts Research Laboratories (9th C.C.A. 1953), 201 F.2d 624 at p. 627, and cases therein cited under Note 5 (quoted in Appendix).

B. THE CLAIMS 2-5 COVER APPELLEE'S DRIVE-IN UNITS IN WHICH THE LEGS AND THE DERRICK HINGE ARE SO LOCATED THAT TWO LEGS OF THE DERRICK LEGS ARE ON ONE SIDE OF THE DRIVER'S POSITION AND TWO ARE ON THE OTHER SIDE OF THE DRIVER'S POSITION WITH THE HINGE POSITIONED ABOVE THE DRIVER'S POSITION

Claims 2-5 read on appellees' drive-in units in structure, function and results. The claims recite the chassis, telescopic lattice derrick, the driver's position adjacent the front end of the chassis, the erecting mechanism hingedly mounted on the chassis between the front and rear wheels, and also at lower end of the derrick. Claim 3 and 4 also claim the position of the motive power unit (see Ex. 1A, Record pp. 649-656; claim 2, items A to F, H and I; claim 3, items A to G, I and J; claim 4, items A to H, J to L (a) claim 5, items A to G and I). It is understood that there is no dispute but that appellees' drive-in units embody each of the above elements of said claims. The previous discussion (see pp. 34-47 of this Brief) shows that not only does the evidence establish that these elements are so embodied in the appellees' structures but also that the findings of the Court include an admission by the appellees that these elements are all embodied in appelles' structure (see pp. 23, 32-34 & 46 of this Brief).

1. The Location of the Hinge with Respect to the Driver's Position

It is the position of appellants that both in appellees' structure and in the patented structure, the derrick hinge is above the driver's position.

The claims 2-5 state that the hinge is "above" the driver's position.

The word "above" means at a higher elevation and is of broader connotation that "immediately above" (see Webster's Unabridged Dictionary). The clause in the claims that the hinge is positioned "above the driver's position" means thus that it is at an elevation higher than the driver's position.

The word "above" does by itself not locate the hinge with respect to its position with respect to the front or rear end of the chassis, i.e., its longitudinal axis, or the driver's position. The position of the hinge with respect to its location along the longitudinal axis is defined in the following claims as follows:

(1) In claims 2 and 3, so as to place the hinge to be intermediate the front axle and the front of the chassis.

(2) In claim 4 and 5, so as to place the hinge adjacent the front axle.

2. The Elevation of the Hinge

The location of the hinge with respect to its elevation is for the purpose of positioning the legs of the derrick, when it is at rest on the truck, so that they are above the cab and above the winch and rear engine (see claim 4, item G (a) and Ex. 1, Fig. 1) and to assure that the derrick does not obstruct the vision of the driver.

The function served by such location is stated in the patent as follows:

"Because of the fact that the cab is positioned adjacent the front wheels where also the derrick is provided, the driver has an unobstructed view of

the location where the derrick is to be erected." (Ex. 1, col. 2, line 39). And further:

"The truck may be driven into the derrick site. It will be observed that the driver has full view of the site and can spot his truck accurately. It will be observed that no equipment associated with the truck is positioned in front of the driver. Particularly, as will be seen, the derrick legs straddle the cab, and the derrick, while it is being erected or retracted to rest position, does not obstruct the view of the operation of the cab." (Ex. 1 col. 4, lines 18 through 26).

The location of the hinge with respect to its position along the longitudinal axis of the chassis i.e., with respect to the location of the driver's position along this axis, is for the purpose of positioning the derrick at the front end of the truck and to provide a hinge supporting framework which cooperates with the legs to carry the loads to the ground, acting also as a framework which protects the driver and places him close to the derrick and gives him clear vision.

The patent states:

"The driver in his cab position, where he has, as is conventional in trucks, all of the steering and driving controls, can see the derrick moving into position at all times and thus may, if he so desires, readjust his position with great facility. Because of the fact that the cab is positioned adjacent the front wheels, where also he derrick is provided, the driver has an unobstructed view of the location where the derrick is to be erected. The improved visibility imparts a surer control by the driver who is in control of the lifting mechanism." (Ex. 1, col. 2, lines 31 through 42).

3. The Location of the Derrick Legs with Respect to the Driver's Position

(a) The Location of the Derrick Legs in Claims 2-4

The location of the legs is thus referenced to their position at the front end of the chassis when erected and to the unobstructed view available to the driver.

Nowhere in the specification is any statement made that the invention is limited to any specific location of the hinge to be "immediately above" the driver's position or that it is limited to the location of the legs as shown in the drawings of the patent, to place the cab so that it protrudes into the area bounded by the lower ends of the four legs. The figures illustrate such a construction but the specification does not so limit the invention.

(i) The ordinary meaning of the word "straddle" as used in claims 2-4 is that two of the legs are on one side of the driver and two on the other side of the driver

The ordinary meaning of the terms employed in the claims as well as the meaning implicit in the description in the specification confirms the fact that the appellees' structures embody the inventions defined by the claims of the patent.

The word "straddle," according to Webster's Unabridged Dictionary, has as one meaning, "To part the legs wide; to stand, sit or walk, with legs wide apart, esp. to sit astride. to bestride; of the legs to spread apart."

It is to be observed that the term "straddle" in claims 2 and 4 is referenced to the front two legs of

the derrick as well as to the rear two legs of the derrick. Thus the claims state that the front two legs straddle the driver's position as well as do the rear two legs. The sense of this use of word "straddle" must be that the legs are spaced apart so that one rear and one front leg is to one side of the driver's position and the other front leg and the other rear leg to the other side of the driver's position.

The language of claims 3 and 4 differs from that of claim 2, in that claim 2 adds to the description of the location of the driver's position with respect to the four legs of the derrick, the specification that the driver's position is located between the four leg portions which are positioned in load transference relation to the ground (Ex. 1, claim 2, J and K and K (a)).

Webster's Unabridged Dictionary defines "between" as "In the space which separates; betwixt; as New York is between Boston and Philadelphia." In this sense the driver's position in appellees' drive-in unit and in the patented unit is between the front legs as well as the rear legs.

(b) The Location of the Derrick Legs in Claim 5

(i) Claim 5 does not contain the statement that the legs straddle the driver's position

It includes any construction in which the legs of the derrick are positioned adjacent the front end of the chassis (Item I, claim 5, Ex 5, Ex. 1A), where the legs are placed in transference relation to the ground with the aid of cooperating members, the legs being located so that one pair of front and rear legs and cooperating means are **to one side** of the driver's

position and the other pair of front and rear legs and their cooperating members are **to the other side** of the driver's position, so that their spread is wider than the cab (see Item J (a) (2), claim 5, Ex. 1A).

The claim thus locates the legs with respect to the transverse extent of the driver's position, i.e., to each side thereof. As to their position fore and aft, the claim merely requires that the derrick be positioned adjacent the front of the chassis (Item 1, claim 5, Ex. 1A).

C. APPLICATION OF CLAIMS TO APPELLEE'S DRIVE-IN UNITS

1. The Accused Structure differs from the Structure as illustrated in the Drawings of the Patent in immaterial Detail, but employs all of the Features of the Invention as described in the Specification

The appellees' structure is identical with the patented structure as illustrated in the drawing, except that the cab is moved a little towards the rear of the truck and the rear legs reach the ground in part through leg extensions which stand spread apart instead of going straight down. The chassis, engine and winch arrangement is the same. The hinge framework is the same. The supporting jacks are the same. The four legs are the same. The outriggers cooperating with the hinge supporting framework act in the same way and are structurally the same as the lower ends of the rear legs and the hinge supporting framework and the jacks in the patented structure. In fact, this is admitted by appellees and found as a fact by the Court. This was discussed at pp. 33-46 of this Brief.

Recourse to the Doctrine of Equivalents is not necessary to "read"the claims 2-5 in structure, function and result on the accused device. They read directly thereon.

The application of Items A through I of claims 2 through 5, and J and K of claim 4 (see Ex. 1A, Record Vol. III, pp. 649-656) is obvious and it is understood that that there is no dispute but that the appellee's structure embodies these elements. In fact it is admitted (see this Brief, pp. 32-33).

In the following discussion we will refer to certain Exhibits included in Volume III of the Record and to others included as physical exhibits by stipulation and reproduced, some on reduced scale, in the Appendix to this Brief.

2. Applying Claim 2 to the Appellees' Structure

(a) Applying Item J of Claim 2 (Ex. 1A, Record p. 650)

The portions which are in load transference relation to the ground (see Appendix, Ex. 93 to 95; Ex. 57; p. 1812 of Ex. 55; Ex. 77 and 84; Record p. 774; and Ex. AB, Record p. 990) include in addition to the front legs L4 of Exhibit 95 (corresponding to 19 of Ex. 57), the cooperating members which act as leg extensions to the rear legs of L5 of Exhibit 95 (corresponding to rear legs of Ex. 57). The hinge supporting framework is composed of the upright members 23D (Ex. 57) and the diagonal members 23E (Ex. 57) extending from the derrick hinge to the chassis, both together forming the structure marked 23, both on Exhibit 57 and Exhibit 77 (see L8 of Ex. 95). These structural members, in cooperation with

the outrigger structure formed of the members 103 104, 105 and the jacks 101 (see Ex 77, 93 and 94), act as leg extensions to transfer the derrick load to the ground (see pp. 40-41, 43-44 of this Brief). Two like structures appear, one on each side of the cab, and they are separated, as will appear from Exhibits 57 and 77, at a distance greater than the transverse extent of the cab.

(b) Applying Item K of Claim 2 (Ex. 1A, Record p. 650)

The cab is positioned between the structures described in Item J and which are, as stated, one on each side of the cab.

The leg portions which straddle the drivers position are the framing members 23D and 23E, which with the four legs, including the outriggers, form the load supporting structure of the derrick, as described in connection with Item J of claim 2. The hinge is located intermediate the front end of the chassis and the front axle (see this Brief, pp. 38-39).

3. Applying Claim 3

(a) Applying Item J of Claim 3 (Ex. 1A, Record p. 652)

The application of Items J, J(a) is obvious and is not understood to be in dispute (see pp. 61-62 of this Brief). Element J (c) specifies that portions of the legs of the derrick which rest on the ground are spaced apart at a greater distance than the width of the front portion of the chassis. Appellees' structures possess this characteristic, as will appear from our previous discussion. (See discussion under Item J of claim 2).

(b) Applying Item K of Claim 3 (Ex. 1A, Record p. 652)

Item K specifies that there are leg portions which rest on the ground below the front part of the chassis. The appellees' outrigger jacks 101 and the front legs supply this structure and function.

Item K(a), state that the leg portions which are below the chassis straddle the driver's position. The front legs rest on the ground below the front end of the chassis. The outrigger structure, which rests on the ground, is composed of the truss (see Ex. 77) formed of member 104, 105 and 106 which are connected to the outrigger are also connected at both sides of the cab to the chassis frame; the diagonal 103 is connected to the chassis rearward of the cab. See Ex. 95, 81 and 83). (See Item J of claim 2).

It is clear that the leg portions which rest on the ground below the front end of the chassis form a structure which embraces the cab and straddle the cab.

4. Applying Claim 4

(a) Applying Item L of Claim 4 (Ex. 1A, Record p. 654)

The four derrick legs are spaced apart for a distance greater than the transverse extent of the driver's position (Itm L(a)) and the legs and hinge are located (Item L(b)) so that the driver's position is between the four derrick legs, i.e., between the front two as well as the rear two. These leg portions extend from the hinge to the ground, the rear two through the hinge supporting framework and the

outriggers (see discussion under Items J and K of claim 2, and Items J and K of claim 3).

5. Applying Claim 5 (Ex. 1-A, Record p. 655)

(a) Applying Item J of Claim 5

This item is stated as follows: 'means cooperating with the lower ends of said derrick legs to place said legs in load transference relation to the ground with said derrick in erect position."

These cooperating means are composed of the truss arrangement composing the outriggers, to wit, the jacks 101; the trusses formed of members 104, 105 and 106 of Exhibit 77, the diagonal brace L6 of Exhibit 95, shown as 23(E) on Exhibt 57, and the diagonal 103, are all connected to the chassis. They form the extensions of Legs L5. These structural elements act together to provide the means which cooperate "with the lower ends of said derrick legs to place said legs in load transference relation to the ground with said derrick in erect position." There is one such structure on each side of the driver's position (see Brief, pp. 36-41). (See discussion under claims 2, 3 and 4 above and this Brief, pp. 61-65).

(b) Applying Items J(a)1 of Claim 5

These structures, one on each side of the cab, are spaced apart transversely for a distance greater than the cab width, and thus conform with Item J(a)1.

(c) Applying Item J(a)2 of Claim 5

The lower ends of the legs and the structures which are described above which cooperate with the legs are located so as to position "one pair of front and rear

legs and their respective cooperating means to one side of said driver's position and the lower ends of the other pair of front and rear legs, and their respective cooperating means to the other side of said driver's position with the derrick in said erect position." (See discussion of Item J, Claim 2, pp. 62-63 of this Brief).

(d) Claim 5, like Claims 2-4, reads directly on the Appellees' Units in Structure and Function

We have shown at pages 62-66 of this Brief that claims 2-4 read directly on the appellees' drive-in units. It is to be noted that claim 5, unlike claims 1 to 4, inclusive, does not contain the phraseology that the legs of the derrick "straddle" the driver's position or similar language.

If the term "straddle" is to be defined so as to require that the driver's position be within the space between the rear legs, such construction cannot be imparted to the language of claim 5, which states that the members cooperating with the legs to "place said legs in load transference relation to the ground" are positioned to each side of the driver's position.

Claim 5 is unambiguous and each element of the claim is found in the appellees' structure where it performs the functions of the elements as claimed.

It is significant that in claims 2 to 5 the language of the claims specifies a derrick with four legs and where the term "straddles" is used it refers to the leg portions of all of the four legs. Compare this statement with claim 1 in which the last clause states that the **rear** legs straddle the driver's position. Note also that in the drawings of the patent the cab is shown as positioned within the space between the **rear** legs and not in the space between the **front** legs.

D. THE PRIOR ART DOES NOT LIMIT THE CLAIMS SO THAT THE APPELLEES' STRUCTURE IS OUTSIDE OF THE RANGE OF EQUIVALENTS TO WHICH THE CLAIMS ARE ENTITLED

The conclusions of the Court (Record p. 90) that the prior art so limits the claims as to place appellees' drive-in units outside of the range of equivalents to which the claims are entitled, is clearly in error and finds no support in the evidence.

Reference to the Pretrial Conference Order makes clear that no such issue of law was to be litigated in the trial unless it be held to be included within the general issue of infringement. (O VIII, Record pp. 62 & 63).

The prior art was never relied on by the appellees below to show that their structure was that of the prior art. Reference to the Pretrial Order (O VI, Record p. 62) and to the appellees' Pretrial Opening Statement (Record pp. 49-56) will show that no such fact issue was presented.

The prior art in evidence in this cause consists of the following items:

Item: Evidence such as Exhibts 10-15 (see Ex. 10, Record p. 657; Ex. 11, Record p. 667; Ex. 12, Record p. 673) of the old back-in devices.

Item: The patents of Exhibit S (Record pp. 779 to 896) introduced on the issue of validity (see this Brief pp. 5 & 6). The Evans patent (Ex. S), either as a patent or a publication, has an effective date later than the admitted and found date of the invention. There was no evidence in this case that this English invention was either known or used in this country

prior to Moon's invention and no issue of such prior knowledge was included in the issues to be tried and no evidence was introduced on this issue at the trial.

Item: The patents of Exhibit T and T-1 introduced for the limited purpose of aiding the interpretation of the file wrapper (see this Brief, pp. 4 & 5, and Record pp. 300-303; 362-364).

Item: Certain advertisements of Waldrip (Ex. M-R) all of a date later than the admitted date of Moon's invention December 12, 1946, and thus are not prior art against the patent on the issue of infringement to limit the scope of the claims (see this Brief, p. 4; Record p. 494). These are admissible only on the issue of anticipation, i.e., the issue of validity, under Sec. 102(b) and as to this the Court found that they did not disclose the invention and held the claims valid. Being of an effective date later than the date of the invention, they are not competent evidence as to the state of the prior art for the purpose of the issue of infringement or for any purpose in connection with the construction of claims.

> *Dunbar v. Myers*, 94 U.S. 187 at pp. 198-199; 24 L.Ed. 34.
> *Spengler Core Drilling Co. v. Spencer* (D.C.S.D. Cal. S.D.), 10 F.2d 579 at p. 583.

Walker on Patents (Deller's Edition) p. 1240.

1. The Prior Art Back-In Units

This art was before the Court (See Ex. 10, 11 and 12). The Court received evidence in Court and by deposition and admissions.

The Trial Court found that the invention described in the patent was an inventive advance over the prior art (Finding #9, Record p. 89).

Nothing in this art can limit the claims to exclude appellees' accused drive-in units.

2. The Pleaded Patented Prior Art

(a) The Prior Art of Exhibit S

(i) The so-called "best patents"

While appellees in their book of patents, Exhibit S, have included a number of patents, they have selected but three as being the best (see this Brief, p. 4, and Record pp. 128 & 368).

Obviously, if these patents are the best representation of the prior art, the remainder are unimportant upon the issue of the limitation of claims by the prior art. If these three patents be not sufficient to establish the metes and bounds of the claims to exclude appellees' drive-in units, the patents with inferior disclosure would certainly not be of consequence.

The Morton Patent 966,346, patented August 2, 1910 (Record p. 781).

The patent states the apparatus is a portable fire fighting apparatus which "may be drawn by horses or otherwise propelled." (Mortion patent, p. 1, lines 20-25). It consists (see Figs. 2, 4, 10 & 24) of a ladder hinged at 47 at the front of the vehicle (see Figs. 2, 4 & 10). The driver's seat is at 400 (see Fig. 2) at the front end of the vehicle, and above the tower when the tower is in retracted position on the ve-

hicle (see Figs. 1 & 2 and p. 9, lines 57-64). The tower is hinged on the front of the vehicle on a hinge which is mounted on the body of the chassis below the driver's position so that it could be laid down on the bed of the wagon or moved to a vertical position(see Fig. 4, 10 & 24, and p. 2, lines 60-80). The structure is positioned either alongside a curbing, as in Fig. 11, or is backed against the curbing as in Fig 10 (see p. 9, lines 18-21). This patent does not disclose a drive-in portable four-legged telescopic derrick hingedly mounted above the driver's position such that the derrick may be erected with its four legs in load transference relation with the ground and such that two legs and their cooperating members are on one side of the driver's position and two legs and their cooperating members are on the other side of the driver's position. In fact, this patent is entirely unrelated to the art of portable oil well drilling and servicing units.

The Trial Court having heard witnesses called by appellees (Record pp. 407-411) and by appellants (Record pp. 473-477) held that the claims of the patent were for an inventive advance over the prior art which included the Morton patent.

The Evans Patent 2,488,180, patented November 15, 1949 (Record p. 880).

It should be noted that the date of the Evans patent is November 15, 1949, and thus is later than the date of invention, December 12, 1946, and thus the Evans patent does not form part of the prior art for the purpose of limiting the scope of the patented invention (see this Brief, pp. 5, 6 & 68).

The Evans patent relates to a portable crane or lift truck to be employed in industrial establishments "for lifting heavy objects and packages for transfer from one place to another, for loading and unloading vehicles and for transferring goods and materals from one level to another" (Col. 1, lines 7-11).

The Evans patent describes a crane jib detachably bolted to the front of the chassis of the tractor (see Fig. 1 and Col. 2, lines 1-6). The driver sits at 14 near the rear of the tractor (see Col. 3, lines 21-29). The crane is not pivotally mounted and cannot be laid down to be carried in horizontal position above the driver. Fig. 10 shows an adaptation of the tractor to a fork lift type of load carrying device called "a platform hoist or stacker" (see Fig. 10 and col. 7, lines 69 et seq.). The crane is replaced by two upright members 110 bolted to the chassis in the same manner as the jib crane of Fig. 1 (see Fig 10 and col. 7, lines 69-73). A horizontal platform 111 is mounted to move up and down the frame members 110 by means of a cable 115 passing over a pulley 116 and connected to a "winding drum" 35 positioned beneath the steering wheel 16 (see Fig. 10 and col. 7, line 74 through col. 8, line 11). The framework 110 is hinged at 119 so that its upper portion can be laid down manually to rest on a "light frame 120" so that the unit may be moved "through arches and doorways." (Col. 8, lines 14-22) (Record pp. 479-480).

Mr. Bayliss testified that the Evans unit was designed for a function entirely different from oil well servicing operations and could not be used without completely changing its character (Record p. 481).

The Downie Patent 1,096,022, patented May 12, 1914 (Record p. 803).

The Downie patent relates to a modification of the portable cable tool unit which cause a drilling bit to be reciprocated in a bore hole by reciprocation of a rope on which the tool is suspended. This is done by passing the rope over a pulley positioned at the top of a mast and causing the rope to be pulled up and down by some power unit. The proper functioning of such devices depends on the elasticity of the rope which imparts the desired action to the drill. (See the general description of such devices given by Downie, p. 1, lines 30-63). Downie's structure is a modification of these devices whereby he may use a wire rope of substantially no elasticity by introducing elasticity by way of springs in the machine so that all parts of the machine subject to the action of the rope are yielding rather than rigidly connected (see page 1, lines 65-84).

The machine is composed of the engine, the winches, the walking beam and the mast for carrying the rope pully which are mounted on a wagon (see Fig. 1). There is no driver's position and no room for one. The wagon is not self-propelled, the engine 7 operating the winding drums 42 (page 2, lines 110-115). and does not drive the wagon (page 2, line 30). (Record p. 478).

The mast 13 employed is a two-legged structure of two posts 9 (see Figs. 1, 4 and 6) hinged at 12. When erect, the derrick is braced by a brace 14 (see Figs. 1 & 4) which extends from the top of the mast to the rear of the vehicle (page 2, lines 39-52).

(ii) The Second Best Patents

The remaining patents included in appellees' Exhibit S were not explained to the Court. They are presumably considered by appellees as less pertinent. They appear to add nothing to the prior art discussed above. Since, however, they are in the record, we feel that the following comments will be sufficient to show that appellees are right to consider them to be of little materiality as to any issue in this cause.

1,897,383 *G. W. Burgoyne, patented Feb.* 14, 1933 (*Record p.* 842). A small boom located on the front of a conventional truck for handling light material loads (see Fig. 1). The boom 13 is hinged at the front of the chassis below the driver's position.

1,894,432 *G. R. Watson, patented Jan.* 17, 1933 (*Record p.* 834). A tractor mounted cable to drilling machine (Fig. 1) with a mast 14. The description is not clear as to whether the machine is pulled or pushed into location as no track drive is shown and no operator's position is shown. The patent does not state that the mast 14 is hinged on the vehicle and on the contrary this suggestion is negated by the statement that the mast is braced (see page 2, lines 26 to 39 and the mast bracing shown in Fig. 1).

1,395,895 *A. M. Bellony, patented Nov.* 1, 1921 (*Record p.* 815). This is a horse-drawn pile driving machine (see Fig. 1). It is designed to be pulled by horses (see Fig. 2). The seat 190 (Fig. 1, p. 6, line 129) is at the opposite end (tongue end) to the mast hinge. Driver faces horses with his back to the mast hinge. It is thus of the back-in type.

1,594,909 *R. P. Steele et al, patented Aug.* 3, 1926

(*Record p.* 831). A well pulling machine in which the mast is not hingedly connected to the tractor. To employ the tractor it is positioned against the brackets 16 and is bolted to the mast by bracket members 16 and bolt 19 to make a rigid connection between the mast and the tractor (page 1, lines 74-97). The driver (see steering wheels adjacent the rear wheels, Fig. 2), sits behind the engine 4 and hoist 7.

2,151,057 *J. Suth, patented Mar.* 21, 1939 (*Record p.* 843). This patent discloses a truck mounted back-in type non-telescopic fixed height derrick (see Fig. 1).

2,204,713 *C. White, Jr., patented June* 18, 1940 (*Record p.* 658). This is also Exhibit 10. It shows a truck mounted back-in type portable derrick—cited in the specification of the patent in suit.

2,215,920 *H. H. Franks, patented Sept.* 24, 1940 (*Record p.* 854), shows a tractor 3 at the rear end of which a foldable derrick is mounted (see Fig. 1). It is thus of the back-in type.

2,276,224 *H. W. Cardwell, patented Mar.* 10, 1942 (*Record p.* 860). A self-propelled well servicing machine of the back-in type employing a pole mast (see Fig. 4).

2,343,517 *E. L. Alexander et al, patented March* 7, 1944 (*Record p.* 872). A back-in type core drilling rig mounted on a conventional truck (see Fig. 1). The tower is at 8 and the driver is at the other end. Nothing is said in the specification of the patent as to whether the derrick is hinged to the truck.

3. The Prior Art of Exhibit T-1 Cited by the Examiner

2,331,558 *McEwen, patented Oct.* 12, 1943 (*Record p.* 898), is a back-in truck and trailer mounted ser-

vicing rig. The truck having separate motive power and trailer 2 is of the conventional design. The trailer carries an engine 4 and draw works 5 (pages 21-29). The telescopic derrick is mounted on the rear of the truck on hinge 17 (see Fig. 1).

2,175,381 *Dow, patented Oct.* 10, 1939 (*Record p.* 907), shows a conventional truck carrying a platform 26 which can be raised and lowered (see Fig. 1 and p. 2, column 1, lines 16-19).

2,204,716 *Woody, patented June* 18, 1940 (*Record p.* 668). This is Exhibit 11 and is the conventional back-in unit discussed previously in this Brief.

2,471,735 *Fleischman, patented May* 31, 1949 (*Record p.* 912), shows a semi-trailer carrying a concrete mixer.

2,251,013 *Donley et al, patented July* 29, 1941 (*Record p.* 916), shows a machine for setting telephone posts. The auger 153 and mast 146 are mounted at the front of the chassis. They can be laid down alongside the side of the cab which is offset to the side (see Figs. 1, 2, 3, 4 and 19).

The connection between the mast and the chassis is not clearly stated and although the specification states that the mast and boring head may be "folded down into substantially horizontal position at one side of the cab" (see p. 2, column 1, lines 39 to 46, p. 3, lines 28-31), the specification does not state that the mast and boring head are hinged to the vehicle. In fact it does state that the boring head 140 (see Figs. 1 and 2) is connected to the forward casing 142 (see Fig. 5 near top of page) of the boring unit 136 (see Fig. 5

and shown dotted and unnumbered on Fig. 4). The boring unit 136 is rigidly connected to the frame of the vehicle (p. 4, column 2, lines 59-69). It is to be noted that such rigid connection is necessary since nothing else holds the mast 146 erect to support the load (see Fig. 3 and page 4, column 2, lines 69-73). Presumably the boring head and the mast are unbolted from the boring unit to be laid down alongside the cab. However, if the undisclosed hinge is read into the Donley patent, the hinge necessarily would be below the driver's position and the mast erected to one side of the driver.

414,578 *Preston, patented Nov.* 5, 1889 (*Record p.* 940), shows a horse-drawn fire wagon, carrying an extensible ladder hinged at f' (see Figs. 1 and 9) to the turntable C below the driver's position (see R, Fig. 1). This patent is similar to the Morton patent discussed above.

379,424 *Steck, patented Mar.* 13, 1888 (*Record p.* 953), shows a horse-drawn fire wagon. The ladder is hinged at the front with the driver's seat above the ladder and hinge (see Fig. 1). This patent is in this regard similar to Morton and Preston.

443,096 *Kim, patented Dec.* 23, 1890 (*Record p.* 957), shows a horse-drawn fire wagon on which is positioned a ladder hingedly mounted at the front of the wagon (see C and L of Fig. 1) below the driver's position which is on the seat F (see Fig. 1).

855,771 *Haines.* Not in evidence book. It is understanding of appellants that it was not included in Exhibit T-1.

2,496,706 *Fiedler, patented Apr.* 6, 1943 (*Record p.* 975), shows pile driver tower pulled into position by wire line 36. Steerable wheels are provided at front of the platform. Operator's position may be provided at 15—at extreme back end (see column 3, lines 18-32).

2,406,620 *Luckett, patented Aug.* 27, 1946 (*Record p.* 971), shows a truck mounted load carrier utilizing the dump body to handle the boom. The truck is a conventional truck and the boom is mounted on the front bumper at 15 (see Figs. 1 and 2, page 1, column 2, lines 13-17).

2,315,942 *Deist, patented Apr.* 6, 1943 (*Record p.* 975). This patent relates to a luffing crane with means for swinging the boom and for elevating or lowering a boom within limits. The crane is certainly not a highway vehicle—no operator or operator's position is shown. It is more like one-half of a drawbridge on tracks. The boom adjusting means is completely at the rear of the machine and is so designed that it could not lay the boom down for "over the highway" travel.

2,335,172 *Cornett, patented Nov.* 23, 1943 (*Record p.* 983). This is a patent of a concrete breaking machine with mast hinged at the rear of the chassis at 41 (see Fig. 5, page 2, column 1, lines 1-7), between the rear wheels 15 and 16 (page 1, column 2, lines 12-15). The operator sits at 90 adjacent the rear end of the vehicle (page 3, column 1, lines 8-15). The vehicle thus backs down the road breaking the concrete behind it. The hammer and its supporting assembly may be laid down alongside the driver. Fig. 8 shows another form showing a conventional truck with engine in front and cab behind the engine with the hammer hinged at the rear.

4. In none of the prior art is there shown a portable derrick suitable for servicing oil wells including a telescopic four-legged derrick hinged at the front of the chassis where the driver is also positioned and with the hinge located above the driver's position.

It is submitted that nothing appears in the prior art to limit the invention disclosed in the Moon patent to a structure where the hinge is located rearward of the front of the chassis for a distance equal to the location of the driver. Nothing in the prior art limits the invention to a structure in which the driver's position is in the area between the two rear legs of the structure. Nothing in this art would exclude from the ambit of the inventor's claims a structure where the hinge in elevation is above the driver's position and, with respect to the longitudinal axis of the chassis, is positioned immediately in front of his feet as in certain forms of the accused device. Certainly, the drive-in unit described in the patent or as illustrated in the drawings of the patent is remote from the prior art. Appellees' drive-in units are not closer to the prior art than they are to the patented structure.

E. THE APPELLEES' DRIVE-IN UNITS ARE THE FULL EQUIVALENTS OF THE DRIVE-IN UNIT, EITHER AS DESCRIBED GENERALLY IN THE SPECIFICATION AND AS CLAIMED IN THE PATENT OR AS IS SPECIFICALLY ILLUSTRATED IN THE FIGURES OF THE DRAWING

We have shown that in the results obtained, the means by which the results are obtained and the way in which the means obtain these results, the appellees' accused device is the same as that of the

patented drive-in unit. They are thus full equivalents. See the previous discussion of the structure, function and operation of the patented structure and that of the appellees' drive-in units in which the structures are compared. The identity is strikingly evident. The only difference is that the cab in appellees' drive-in unit is moved rearward a few inches and outriggers are employed. In fact, this is admitted by appellees' counsel in open court at the argument.

> "THE COURT: So that you say that the plaintiffs' combination is such that in order to build it as taught in the patent, the legs of the derrick do straddle the cab; is that correct?
>
> "MR. KENWAY: In order to build a unit which meets the language of the claims, you have to have that derrick straddling the cab, yes, sir.
>
> "THE COURT: And your answer to that, as I understand it, is even though we use the same combination, it is different to the extent that the legs of our derrick do not at all straddle the cab.
>
> "MR. KENWAY: Yes, sir.
>
> "THE COURT: So therefore, the claims cannot, as we say, read on our device; is that it?
>
> "MR. KENWAY: Yes, sir, that is just what we do say.
>
> "THE COURT: The file wrapper does not have anything to do with that, does it?
>
> "MR. KENWAY: Oh, yes, it does, your Honor.

"THE COURT: Except as limiting the scope of the claims?

"MR KENWAY: Well, you have —

"THE COURT: Assume there is nothing in the file wrapper, wouldn't you make the same contention?

"MR. KENWAY: No, I don't think I could.

"THE COURT: Why? Because this would be a substantial equivalent; is that it?

"MR. KENWAY: Yes, precisely so. You heard Mr. Moon testify that our construction was the substantial equivalent of what is called for in the claims." (Record pp. 500-501)

Certainly that which is a substantial equivalent of the claims must be for that reason an infringement.

F. THE CLAIMS SHOULD NOT BE RESTRICTED TO THE SPECIFIC FORM SHOWN IN FIGS. 1 AND 3 OF THE SPECIFICATION OF THE PATENT EXHIBIT 1

1. Nothing in the specification of the patent or in the claims makes form of the essence of the claimed invention and the file wrapper does not limit the claims to the precise structure of the illustrations to require that the hinge and derrick legs be positioned in the precise location shown in the drawings

The location of the hinge with respect to its elevation is described and claimed to be above the driver so that the derrick may be erected at the front of the chassis and permit the derrick when it is laid down to be above the hoist and engine so as not to obstruct the view of the driver (this brief, pp. 9, 12, 29 & 33).

The position of the hinge and the legs with respect to the longitudinal axis is to permit the derrick to be erected at the front of the chassis with two legs to one side of the driver and the other two legs to the other side of the driver.

An applicant for a patent must disclose an embodiment of the invention, but he is not thereby confined to the disclosed specific form. It is the claims and not the specification which measure the invention. *Smith* v. *Snow*, 294 U.S. 1 at p. 11; 55 S. Ct. 279; 79 L. Ed 721 (quoted in Appendix); *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U.S. 405; 28 S. Ct. 748; 52 L. Ed 122; *Graver Tank & Mfg. Co.* v. *Linde Air Products* (1950), 339 U.S. 605, 607; 70 S.Ct. 854, 94 L. Ed 1097; *White* v. *Dunbar* 1886, 119 U.S. 47, 51-52; 7 S.Ct. 72; 30 L. Ed 303.

Nothing in the evidence or in the specification of the patent or the file wrapper makes the positioning of the derrick hinge immediately above the driver's position rather than above and directly in front such a critical difference as to distinguish the claims from the prior art. *Union Oil Co. of California* v. *American Bitumuls* (9 C.C.A. 1940), 109 F. 2d 140 at pp. 145-146 discussed infra at pp. 97 & 98 of this Brief).

Justice Curtis' remarks in *Winans* v. *Denmead*, 15 Howard 330, 342; 14 L. Ed 717, quoted in *Saco-Lowell Shops* v. *Reynolds* (4th C.C.A. 1944), 141 F.2d 587 at pp. 592-594 (quoted in Appendix) appear most apposite. This case quotes from many cases from various jurisdictions and makes clear the principle that it is not a defense to an action for infringement that the claim relates to a singular form not used by the infringer, where the principle of the invention, the mode

of operation, embodied in a form by means of which a new result is achieved, is appropriated, changing merely the form. See also, *Graver Tank & Mfg. Co. Inc.* v. *Linde Air Products Co.*, supra; *Hubbel v. United States*, 179 U.S. 77, 80; 21 S. Ct. 24 at p. 25; 45 L. Ed 95; *National Hollow Brake-Beam Co.* v. *Interchangeable Brake-Beam Co.* (8th C.C.A. 1901), 106 F. 693, at p. 711; *Angelus Sanitary Can Mach. Co.* v. *Wilson* (9 C.C.A. 1925), 7 F. 2d 314, at p. 318 (quoted in Appendix); *Chicago Pneumatic Tool Co.* v. *Hughes Tool Co.* (10th C.C.A.), 97 F.2d 945, quoted with approval in *Stearns* v. *Tinker* and *Rasor* (9th C.C.A. 1957), 252 F. 2d 589 at p. 596 (quoted in Appendix); *G. H. Packwood Mfg. Co.* v. *St. Louis Janitor Supply Co.* (8th C.C.A. 1940; Rehearing den. 1941), 115 F. 2d 958, at p. 963 (quoted in Appendix).

The shifting of the cab rearward is an immaterial change. That the shifting of the cab back and forth is an insignificant variation of the invention covered by the claims will appear from a casual inspection of the various forms of the drive-in units sold by the appellees and by licensees under the patent in suit.

We have reproduced in the Appendix to this brief certain exhibits which illustrate this point.

Thus Exhibits 57, 93 and 94, and the forms of drive-in units shown in Exhibit 54, pages 1883 and 1884, show the hinge at the top of the cab above the driver's position and just in front of the cab top.

Exhibit 57 also shows the structure of page 1883 except as Mr. Woody testified with respect to Exhibit 56 (orginally Woody Ex. 3) of which 57 is a reduction.

Mr. Woody testified with respect to this Exhibit (see Record, p. 537):

"Q. You are talking now about figure 3—the position of the cab?

"A. Yes. It is actually set back there and doesn't extend up quite as high as shown in the illustration.

"Q. It doesn't make much difference?

"A. No, it doesn't make a great deal of difference."

The context of the examination at this point makes clear that Mr. Woody was comparing Exhibit 3 (Ex. 57) with structures actually built, sold and advertised in their catalog.

He testified (Record, p. 551) that the driver's head is below the hinge (Ex. 57).

That it doesn't make much difference whether the hinge is somewhat above or moved more closely to the top of the cab or the cab is moved close to or back from the hinge point is clear from the other exhibits reproduced in the Appendix.

Mr. Woody testified that a horizontal distance of only 15¼ inches separates the vertical line 30 passing through the hinge axis shown at 26 (Ex. 57) and the line 11 which, as will be seen, passes through the center of the steering wheel (see Record, pp. 546-547).

Exhibit 95 (reproduced in the Appendix) shows the form of Exhibit 59 (Record Vol. III, p. 773) with the derrick erect. The form which is a reduction of Exhibit 58 (originally Woody Ex. 4) corresponds to the unit shown on page 1884 of Exhibit 54 (Record, p. 517).

Exhibit 63 (Woody Ex. 9) shows the structure of page 1884 of Exhibit 54 (Record, p. 519).

Exhibit 65 (Woody Ex. 14) shows the structure of page 1884 of Exhibit 54 (Record, p. 520).

Note, however, that in Exhibit 65 the cab has been moved back, and in the form of Exhibit 63 the cab has been moved forward.

The form shown on page 1810 of Exhibit 55 and that shown in Exhibit 60 (Woody Ex. 5) shows the same hinge arrangement as does the form on page 1810 of Exhibit 55 (Record, p. 518).

Here the cab hinge relationship is similar to that in Exhibit 60, whereas the form of Exhibit 63 shows the cab and the hinge closer together as in the form of Exhibits 57, 59, 93 and 95. Note also the hinge in Exhibits 59, 95, 60, 63 and 65 is at a higher elevation above the cab than that in Exhibits 57, 93 and 62.

It is quite evident that the exact location of the hinge is an immaterial detail as long as it is above the driver and is at the front of the chassis where also is the driver located.

We add here as an illustration the forms of drive-in units manufactured by the licensees under the patent (see Appendix).

The Waldrip unit designed for Waldrip by Mr. Moon (Record, p. 216), is shown in the photographs, Exhibits 33, 34 and 35 (Record Vol. III, pp. 682, 683, 684).

It will appear clearly from the photographs that the hinge axis is just above and just forward of the uppermost corner of the cab.

In the forms of the licensees, Hopper Machine Works, Inc., Ideco Division, Dresser Euipment Co., Wagner-Morehouse (F #2 O III 12—PS 58, Record p. 49) shown in Exhibit 47, page 2367, Exhibit 51, page 2711, and Exhibit 53, page 5309, the hinge is variously positioned as will be observed from the reproductions. Thus in the Ideco unit and in the Wagner-Morehouse unit the hinge is above and ahead of the cab. (See Record, pp. 287-291).

It will appear from these various exhibits that various manufacturers move the elevation of the hinge up or down above the driver's position and move the cab back and forth to suit the variations in the details of their designs, but all of them use essentially the same design and for the same purpose to function all in the same way.

Appellees cannot avoid infringement by changing the form from the precise form illustrated in the drawings of the patent while they retain the principle and mode of operation and attain the results by the same or equivalent means. *Angelus Sanitary Can Mach. Co.* v. *Wilson* et al, supra.

2. To construe the claims 2 to 5 to limit them to a construction where the cab enters the free area between the rear legs imparts to them the limitations of Claim 1 which do not appear in claims 2 to 5

Thus claim 1 recites that there are two front and two rear legs (Item E(a), Claim 1, Exhibit 1A) and that there is a free area between the rear legs Kb(1). The relative location of the legs and the driver's position is stated as follows (see Item K, Claim 1, Exhibit 1A):

K. and said lower leg portions and said hinges being located with respect to the longitudinal axis of said chassis

(a) to cause a portion of the driver's position to enter said free area and

(b) the lower rear leg portions to straddle said driver's position when the derrick is in said erect position.

In claim 1, the location of the driver's position is specified to be located in the manner shown in Figs. 1 and 3 of the Patent Exhibit 1 by reason of the limitation that the driver's position enters the free area between the rear legs. It is to be noted that the term "straddle" is not relied on to specify this feature, or otherwise the recitation of the entry into the free area between the rear legs of the derrick would be redundant.

Claim 2 differs from claim 1 substantially in the difference in the recitation of the location of the derrick legs with reference to the driver's position. Claim 2 does not have the limitation that the rear legs have a free area between a portion of the rear legs and does not require the entry of the driver's position between these rear leg portions. It states merely that there be four legs (Claim 2, Item E(a)) and thus the driver's position be between and straddled by each of the four legs when the derrick is erect (Item K).

Claims 2, 3, 4 and 5, as stated above, also recite the relation of the driver's position to the legs in language which in their ordinary meaning and consonant with the specification makes them of broader scope than claim 1. They do not require that the

driver's position enter into the area between the rear legs of the derrick.

Claims 2 and 3 specify that a portion of the driver's position is "positioned between said leg portions." Here again the term "straddle," which refers to all four legs, is used in connection with the position of all four legs as related to the driver's position.

Claim 4 specifies that there are four legs (Item Gc, Claim 4, Exhibit 1A). The location of these four legs is specified (Item Lb, Claim 4, Exhibit 1A) "said leg portions and said hinge being located with respect to the longitudinal axis of said chassis causing a portion of the driver's position to be positioned between the said leg portions, said leg portions extending from said hinge to rest on the ground and straddle said driver's position with the derrick in said erect position with the hinged derrick in load transference relationship to the ground."

Contrast the definition locating the legs with respect to the driver's position in claims 2, 3 and 4 and the definition of claim 1. In claim 1, where it is desired to locate the driver's position in the relationship specifically shown in the drawings of the patent, the language is "to cause a portion of the driver's position to enter said free area." No such limitation is in claims 2, 3, or 4, (see claims 2 and 4) where the driver's position is stated to be "between" the leg portions, i.e., between the front legs as well as the rear legs.

If, as the Appellees contend, the claims 1-4, which contain the term "straddle," thus define a particular location of the legs, claim 5 omits this requirement.

Claim 5, which was allowed without amendment, can thus not be narrowed by limiting the legs to a particular location along the length of the chassis except that they be so positioned to each side of the driver's position so as to erect the derrick adjacent the front of the chassis. The disclosed invention is not limited in the specification to the form illustrated in the drawing and embodied in claim 1.

We have contended in this brief that the ordinary meaning of the words used in the claims, consonant with the specification of the patent, does not require that the claims be limited to a construction such that the cab enters into the free area between the rear legs (see this Brief, pp. 80-85). We here urge that such limitation of claims 2-5 is improper since it would introduce a limitation present in claim 1 and not present in claims 2-5.

The rule of claim construction requires that the claims be read separately and that limitations in one claim not be read into other claims, provided that the more general claims are not broader than the actual invention. *Kemart Corp. v. Printing Arts Research Laboratories* (9 C.C.A. 1953) 201 F2d 624 at p. 633 (Quoted in the Appendix); *Smith v. Snow* supra at 294 U.S. 1, p. 13 and 14; 55 S.Ct. 279; 79 L.Ed 721 (Quoted in the Appendix); *Electric Machinery Manufacturing Co. v. General Electric Co.* (2nd C.C.A. 1937), 88 F2d 11 at p. 16.

The specification discloses the functions to be achieved by positioning of the hinge adjacent the front end of the chassis, and the positioning of the driver adjacent the front end of the chassis with the hinge above the driver's position in terms which are

satisfied by the forms of the invention as employed by Appellees as well as the form illustrated in the drawings of the patent.

We have discussed this point previously where it is shown that both the form illustrated in the drawings and Appellees' forms produce substantially the same results in substantially the same way by substantially the same means. We have shown that these results, means and manner of operation are not dependent on the particular relative position of the driver and the hinge except that they be both adjacent the front end of the chassis so that the driver can have a clear view ahead. The functions of the invention to give a stable platform during erection are not determined by the location of the driver but by the location of the derrick hinge with respect to the chassis. The driver's position is determined by the requirement that he be close enough to see where he is going and that the derrick can be supported above him. The specification makes this clear and nowhere mentions that the derrick hinge must be so located as to enter the area between the rear legs.

3. The File Wrapper creates no estoppel to limit the claims 2-5 to the form shown in the drawings of the patent and to require that the driver's position enter the area between the rear legs of the derrick

It is to be noted that although this contention was urged by the defendant below (see O-VI-D.S. 20 Record pp. 55-56 and Record pp. 499-500), the court made no finding that the claims are limited by any file wrapper estoppel so that they exclude Appellants' device.

(a) The claims not being ambiguous do not require any recourse to the file wrapper for their interpretation

In applying the claims to the Appellees' device, it is not necessary in order to spell out infringement to ignore a limitation embodied into the claims in order to induce their allowance by the Patent Office.

This court has held that where the terms of a claim as allowed are clear and not ambiguous, the withdrawal of other claims cannot affect the plain terms of the allowed claims. *Research Products Co.* v. *Tretolite* (9th C.C.A. 1939) 106 F2d 530 at pp. 535 and 536 (Quoted in Appendix). The same rule has been applied in other jurisdictions. *R. Hoe & Co., Inc. v. Goss Printing Press Co.* (2nd C.C.A. 1929) 30 F2d 271 at p. 275 (Quoted in Appendix); *Ceramic Process Co. v. General Porcelain Enameling & Manufacturing Co.* (7th C.C.A. 1942), 129 F2d 803.

(b) The burden of proof to establish a File Wrapper Estoppel is on the one who raises it, i.e., the Appellees

George P. Converse & Co. v. *Polaroid Corp.* (D.C. Dist. of Mass. 1955), 136 F. Supp. 912 at p. 914.

(c) Analysis of the File Wrapper

(i) Claims as originally filed

The original claims 1 to 5 of the file wrapper (Exhibit T, pp. 9 and 10) did not specify that the hinge was positioned on the derrick and on the chassis; nor that it was positioned above the driver's position; nor did they specify the relative position of chassis-derrick hinge and the hinge between the erecting

mechanism and the derrick; nor that the derrick was a collapsible derrick capable of extension when erected. These five claims were rejected on the McEwen patent on the ground that they called for mere reversal of the McEwen structure. (See page 16 of Exhibit T).

(ii) The added claims

This rejection was not acceded to and an additional claim 6 was presented. (See page 17 of Exhibit T).

Claim 6 differed from claims 1 to 5 in specifying that the ends of the derrick legs protruded ahead of the front wheels, whereas claims 1 to 3 had claimed that they protruded ahead of the cab, and claims 4 to 5 that the legs protruded ahead of the chassis.

Claim 6 did not specify the nature of the derrick nor where the hinge was located except to say that it was mounted at the front end of the chassis. It did not specify the position of the driver and thus would be infringed by positioning the driver at the rear of the vehicle. The claim was construable to cover the hinging of the derrick below the driver.

The Examiner so construed it since he rejected the claim 6 and similar claims on Fiedler 2,496,706, who places the driver in the rear, and on Preston 414,578, whose ladder is hinged below the driver's position. (See page 33 of Exhibit T; see also T-1 and our discussion of these references in this Brief, pp. 76 & 77).

Additional claims 7 to 13 were also presented in a supplemental amendment. (See page 29 of Exhibit T).

Claim 6 was cancelled and some amendments which did not change the substance of the other claims were made. (See Exhibit T, pages 29-31 and pages 35-36). The claims were maintained and argued, the applicant insisting that the claims were patentable. (See Exhibit T, pages 37 to 40).

The Examiner then withdrew these references and rejected the claims on a new combination, to wit, McEwen taken together with Donley 2,251,013 or Luckett 2,406,620. (Exhibit T, pages 42 and 43).

Donley shows a pole type auger for drilling holes for telephone posts. The pole is positioned and may be laid down to one side of the cab (see Figs. 1, 3, 19, see this Brief pp. 75-76). Luckett shows a b o o m hinged to the bumper of a conventional truck (see Figs. 1 and 2, see this Brief p. 77).

(iii) Cancellation of claims 1-13

The claims were then cancelled and a new set of claims presented, to-wit, claims 14-17. (Exhibit T, pages 47 to 48).

These claims differed from the previously cancelled claims in specifying among other features the following:

Claim 14 differed in specifying the hinge as being positioned adjacent the front end of the chassis.

Claim 16 differed in specifying that the hinge was positioned on the lower end of the derrick and adjacent the front wheels and the top of the cab, which limitation was also contained in claim 17.

Claim 14 specified the position of the hinge as adjacent the front end of the chassis in front of the front axle and made no reference to its relation to the cab.

Claim 15 differed from the cancelled claims in specifying that the hinge was positioned above the cab.

Claim 17 also included a limitation that the **front leg** members straddled the cab. Note that in so defining the position of the front leg members the claim obviously did not intend the word "straddle" to mean that the cab was in the space between the front leg members since no such construction was shown in the patent.

The Examiner's next action, while objecting to the form of the claim, agreed to allow the claims 14, 15 and 17 if changes in language were made. He stated he would allow claim 17 if it is stated that the rear legs rather than the front legs straddled the cab. Claim 16 was rejected on Donley and Luckett in view of McEwen. (See Exhibit T, pages 66 and 67). The Examiner stated:

> "The claims should specifically set forth the particular width relationship of the derrick legs and also the location of the cross bracing elements so as to indicate that the derrick legs will straddle the cab without interference with said cab or cross bracing" (Exhibit T, page 66).
>
> * * * * *
>
> " * * * The rear legs of the derrick, as set forth in the specification and not the front legs, as stated in line 19 of claim 17, straddle the cab." (Exhibit T, page 66)
>
> * * * * *
>
> "Upon satisfactory correction of claims 14, 15 and 17 along the lines indicated above such claims appear to be allowable." (Exhibit T, page 67)

It will be observed that at this posture of the prosecution the Examiner did not reject 14 and 15 on the merits and held that the claims which did not contain any limitation as to the straddling of the cab by the rear legs were directed to patentable subject matter, although objectionable as to form. (Exhibit T, pages 66 and 67). He repeated his rejection of claim 16 and made the rejection final.

The Examiner sought to restrict the claims to the form of claim 17 with the amendments which he invited the applicant to adopt to obtain allowance.

(iv) The Cancellation of Claims 14 to 17

The applicant accepted the invitation by introducing such limitation in claim 18, **but did not introduce such limitation in claims 19, 20 and 21, eventually claims 2, 3 and 4 of the patent.**

The applicant urged patentability of the claims not because of any straddling feature which defines only a structure such as illustrated in the figures of the patent. He insisted that his right to a patent, as presented by claims 18-20, was on much broader grounds.

In stating the substance of the interview had prior to presenting the new claims 18-20 applicant summarized, the Examiner's position "with regard to the claims, previously submitted the Examiner has taken the position that there is no invention in reversing the McEwen derrick so it will be erected adjacent the front end of the truck as is shown by pole, boom and mast art references cited. * * * " (Exhibit T, page 76 —amendment filed November 25, 1953).

The argument presented in answer was that McEwen when faced with the problem peculiar to mount-

ing of oil well derricks found it necessary to erect the derrick over the rear end of the truck. "He not only did not comprehend applicant's solution, he had no realization of the problem." (Exhibit T, page 76).

It was then asserted that so long as applicant restricts his claims to the collapsible or sectional derricks of four longitudinal braced legs so that when erect the legs transmit the load to the ground, preferably with the derrick tilted, the claims are patentable, pointing out that not all these elements need be in all of the claims (Exhibit T, page 77 and 78). In urging the patentability of the claims applicant stated:

"The only conclusion that can reasonably flow from these facts is that so long as the claims define a structure so as to limit their scope to derricks of the type with which we are concerned as distinguished from poles, masts and booms, and if they further define the structure whereby the derrick is erected adjacent the front end of the truck or chassis, they are clearly allowable." (Exhibit T, page 77, lines 1-8)

With regard to the location of the driver's position backward or forward from the front end of the chassis, it is stated:

"In claim 19 (later claim 2) it is not recited that the driver's position is forward of the front axle. It is obvious that the driver's position may be over the front axle or just to the rear of it. Certainly patentability does not hinge on this limitation." (Exhibit T, page 79, lines 6-11)

It is significant to note that the claims were then not rejected on the prior art but as indefinite. (Exhibit T, page 83, Rejection November 30, 1953). The amendments made did not affect the substance of the claims

with respect to the location of the legs. (Exhibit T, page 84 and 85—supplemental amendment December 29, 1953)

Claim 5 was presented by this amendment and allowed without rejection or amendment.

The history thus shows:

ITEM: That it is not a particularly important part of the invention as disclosed in the specification that the location of the rear legs be as shown in the drawings to cause the cab to enter into the free space between the rear legs;

ITEM: That at no time did applicant accede to the Examiner's statement that the invention was limited to such a structure, but instead insisted that the invention was not so limited and presented claims without specifying that the driver's position is within the periphery of the derrick area, claiming broadly that the legs of the derrick are spread apart wider than the transverse extent of the driver's position so that one set of legs are to one side and another to the other side of the driver's position;

ITEM: That no art was cited showing a drive-in unit employing a collapsible lattice derrick with four legs which was hinged at the front of the chassis above the driver's position, and that applicant at all times insisted that he was entitled to a claim for such structure;

ITEM: That the Examiner accepted claims which did not specify that the rear legs and not the front legs straddle the cab and allowed claims which stated that all the legs straddle the cab (claims 2-4) and ac-

cepted claims which did not refer to straddling (claim 5).

In fact, even express amendments which are not shown by the evidence or the patent to be the critical limitations distinguishing the claims from the prior art on which the claims prior to amendment were rejected by the Examiner, are not to be denied a reasonable interpretation as to equivalents.

> *Union Oil Co. of California v. American Bitumuls Co.* (9th C.C.A. 1940), 109 F2d 140 at p. 145-146

The Montgomery patent involved in the above case was directed to a process for emulsifying asphalt with alkali at a temperature of about 215° F. The applicant originally claimed the process without limitation as to the exact temperature, but merely generally that the emulsification be carried out hot. Such claims were originally rejected on the prior art. The applicant cancelled all claims and instead substituted claims in which the temperature was specified as 100° C., and later, at the request of the Patent Office to convert the Centigrade designation into Fahrenheit, changed it to 215° F. The Court stated that the applicant had protested the rejection of the claims on the prior art and maintained at all times that his hot method of emusification was an invention over the prior art method of cold emulsification. He stated that the prior art, primarily the Page patent, did not contemplate the emulsification of hot asphalt by caustic alkali. He maintained in an oral interview with the Examiner that the prior art taught that in order to emulsify oils with alkali it was necessary to add a saponifiable ma-

terial before mixing. He stated it was his discovery that it was not necessary to do so and that he could emulsify the asphalt with caustic without adding such saponifiable material. The Court commented that apparently the Patent Office abandoned its contention that the prior art Page reference contemplated the emulsification of melted asphalt by caustic as was contended by the applicant and as would appear from the Page patent. The Court stated:

> "We see nothing in the occurrences in the Patent Office which would estop the claimant from a reasonable interpretation of his patent claims as to temperature regardless of the specific temperature mentioned in the claims which is nowhere indicated either in the patent or by the evidence to have been a critical temperature." (p. 145-146)

See also:

Holstensson v. Webcor, Inc. (D.C. N.D. Ill. E.D. 1957), 150 F. Supp. 441; *Electric Machinery Mfg. Co. v. General Electric Co.* (2nd C.C.A. 1937), 88 F2d 11, 16 and cases therein cited; *G. H. Packwood Mfg. Co. v. St. Louis Janitor Supply Co.* (8th C.C.A. 1940, Rehearing den. 1941) 115 F2d 958 at 963 (Quoted in Appendix).

Whatever may have been the Examiner's original position with respect to the allowance of claims, the fact that he allowed broader claims may be as the 2nd Circuit Court and Judge Yankwich have remarked that he simply changed his mind and recognized the broader aspects of the invention. *Joints, Inc. v. Garrett* (D.C.S.D. of Cal. Central Div.), 102 F. Supp. 760 at 761 (Quoted in Appendix).

See also:

Westinghouse Electric & Mfg. Co. v. Condit Electrical Mfg. Co. (2nd C.C.A. 1911), 194 F. 427 at p. 430 (Quoted in Appendix); *Landis Mach. Co. v. Parker-Kalon Corp.* (2nd C.C.A. 1951), 190 F2d 543, 544.

The allowance of claims 2-4 which do not contain the limitation that the driver's position enters the free space between the rear legs and the allowance of claim 5 which does not refer to straddling makes clear that these claims are not to be limited to the construction of claim 1 of the patent. *Smith v. Snow* cited supra, 294 U.S. 1 at p. 13, 14 and 15 (Quoted in Appendix).

See also:

Hunt v. Armour & Co. (7th C.C.A. 1950), 185 F2d 722 at p. 729; *Sanitary District of Chicago v. Activated Sludge, Inc.* (7th C.C.A. 1937), 90 F2d 727; *Holstensson v. Webcor, Inc.* (U.S.D.C. N.D. Ill. E.D. 1957), 150 F. Supp. 441; *Electric Machinery Mfg. Co. v. General Electric Co.* (2nd C.C.A. 1937), 88 F2d 11, 16 and cases therein cited; *G. H. Packwood Mfg. Co. v. St. Louis Janitor Supply Co.* (8th C.C.A. 1940), 115 F2d 958 at p. 963 (Quoted in Appendix); *Westinghouse Electric & Mfg. Co. v. Condit Electrical Mfg. Co.* (2nd C.C.A. 1911), 194 F.427, p. 430 (Quoted in Appendix); *Landis Mach. Co. v. Parker-Kalon Corp.* (2nd C.C.A. 1951), 190 F2d 543, 544.

(d) The claims are entitled to the range of equivalents permitted by the prior art cited by the Examiner in rejecting the claims

There is nothing in the history of the prosecution of the application as evidenced by the file wrapper to support any contention that applicant in order to ob-

tain a patent disclaimed the forms of the drive-in unit as employed by Appellees in order to obtain a patent for the form shown in Figs. 1-3 of the patent. Nothing in the prior art required this for none of the prior art showed any drive-in unit.

The file wrapper estoppel thus is for this reason also of no avail to Appellees in their effort to appropriate the entire invention by a change in an immaterial respect in the form of the invention as shown in the drawings of the patent. The claims include Appellees' form also. *Hunt Tool Company v. Lawrence* (5th C.C.A. 1957), 242 F2d 347 at p. 354 (Quoted in Appendix); *Cutter Laboratories v. Lyophile-Cryochem Corp.*, (9th C.C.A. 1949).

VI

CONCLUSION

The sum of the matter on the issue of infringement lies in this; the Trial Court having found that the drive-in portable derrick of the patent claims is an inventive advance over the prior art held that the Appellees avoid infringement by moving the cab back some 15 or so inches without in any other way changing any essential element of the invention. The change makes no difference in the results obtained, or in the way the results are obtained or in the means by which the results are obtained. In all these respects Appellees' drive-in portable derrick and the patented portable derrick is the same.

None of the prior art shows any drive-in portable derrick and none of the prior art describes any de-

vice which has the function or gives the results obtaind by the patented drive-in portable derrick or by Appellees' drive-in portable derrick. That the back-in portable derrick does not produce the results nor operate in the same way as does the drive-in portable derrick is a settled fact in this litigation and was so found by the Trial Court.

That Appellees' drive-in portable derricks are the full equivalent is established by the evidence and was admitted by Appellees counsel in open court.

In no way do Appellees' drive-in portable derricks resemble the prior art more closely than they resemble the patented drive-in portable derricks. In what way can it be said that Appellees' drive-in portable derricks are outside the range of equivalents available to the claims of the patent? This can be said only if the claims are given an interpretation which limits them to the very form of the drive-in portable derrick ilustrated by the drawings of the patent.

But none of the claims is limited to this form and the specification does not make this form an important part of the invention. The claims read directly and unambiguously on Appellees' drive-in portable derricks. To construe claims 2 to 5 so as to add the limitation of claim 1 that the driver's position enters the free area between the rear legs would introduce this limitation, found in claim 1, into claims 2-5 where it does not appear nor is this made necessary by any file wrapper estoppel. Although claim 1 contained such limitation, applicant did not add such limitation to claims 2-5 and insisted that the invention was of broader scope. In fact he added claim 5 which was allowed without amendment.

It is submitted that having found the claims to be for an inventive advance over the prior art, the Trial Court was clearly wrong in permitting the Appellees to appropriate the very heart of the invention by making an immaterial change in its form.

It is submitted that this Honorable Court should reverse the lower Court's judgment of non-infringement.

Respectfully submitted,

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PHILIP SUBKOW

In propria persona and
Attorney for Appellants

APPENDIX

U. S. CODE, TITLE 35; PATENTS

Sec. 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or

(f) he did not himself invent the subject matter sought to be patented, or

(g) before the applicant's invention thereof the invention was made in this country by another who had

not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable dilligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other. (R.S. 4886, 4887, 4923; 35 U.S.C., 1946 ed., 31, 32, 72.)

Sec. 103. Conditions for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Vehicle Code State of California as amended to 1945.

Chapter 2. Regulations Governing Size, Weight and Load

694. Width of Vehicles. (a) The total outside width of any vehicle or the load thereon shall not exceed 96 inches, except as otherwise provided in this section.

(b) When any vehicle is equipped with pneumatic tires the maximum width from the outside of one wheel and tire to the outside of the opposite outer wheel and tire shall not exceed 100 inches, but in such event the

outside width of the body of such vehicle or the load thereon shall not exceed 96 inches.

698. Length of Loads. (a) The load upon any vehicle operated alone, or the load upon the front vehicle of a combination of vehicles, shall not extend more than three feet beyond the front wheels of such vehicle or the front bumper of such vehicle if it is equipped with such a bumper.

704. Axle Weight Limits. The gross weight imposed upon the highway by the wheels on any one axle of a vehicle shall not exceed 18,000 pounds and the gross weight upon any one wheel, or wheels, supporting one end of an axle, and resting upon the roadway shall not exceed 9,500 pounds except as follows: As to vehicles first registered prior to January 1, 1930, the gross weight imposed upon the highway by the wheels on any one axle shal lnot exceed 18,000 pounds and the weight upon any one wheel shall not exceed 11,000 pounds but this exception shall terminate December 31, 1942.

Amended Ch. 281, Stats. 1937. Effective Aug. 27, 1937.
Amended Ch. 788, Stats. 1939. Effective Sept. 19, 1939.
Amended Ch. 392, Stats. 1941. Effective Jan. 1, 1942.

705. Ratio of Weight to Length. *Every vehicle whether operated singly or in a combination of vehicles, and every combination of vehicles must comply with both subdivisions (a) and (b) of this section. The limitations imposed by this section are in addition and supplemental to all other provisions of this code imposing limitations upon the size and weight of vehicles.*

(a) The total gross weight with load imposed on the highway by any group of two or more consecutive axles of a vehicle or of a combination of vehicles where

the distance between the first and last axles of said two or more consecutive axles is 18 *feet or less, shall not exceed that given for the respective distance in the following table:*

Distance in feet between first and last axles of group	Allowed load in pounds on group of axles
3	30,100
4	30,800
5	31,500
6	32,200
7	32,900
8	33,600
9	34,300
10	35,000
11	35,700
12	36,400
13	37,100
14	43,200
15	44,000
16	44,800
17	45,600
18	46,400

(*b*) *The total gross weight with load imposed on the highway by any vehicle or combination of vehicles where the distance between the first and last axles is more than* 18 *feet shall not exceed that given for the respective distances in the following table:*

Distance in feet	Allowed load in pounds
18	46,400
19	47,200
20	48,000
21	48,800
22	49,600
23	50,400

Distance in feet	Allowed load in pounds
24	51,200
25	55,250
26	56,100
27	56,950
28	57,800
29	58,650
30	59,500
31	60,350
32	61,200
33	62,050
34	62,900
35	63,750
36	64,600
37	65,450
38	66,300
39	67,150
40	68,000
41	68,000
42	68,000
43	68,000
44	68,000
45	68,000
46	68,800
47	69,600
48	70,400
49	71,200
50	72,000
51	72,800
52	73,600
53	74,400
54	75,200
55	76,000
56 or over	76,800

708. Gross Weight per Inch Width on Certain Tires. (a) The gross weight upon a solid tire upon a vehicle shall not exceed 600 pounds upon any inch of the channel base width of such tire.

(b) The gross weight of any vehicle and load resting upon any metal tire in contact with the roadway shall not exceed 500 pounds upon any inch of the width of such tire but this limitation shall not apply to traction engines or tractors, the propulsive power of which is not exerted through wheels resting upon the roadway but by means of a flexible band or chain, known as a moveable track, when the portions of the movable tracks in contact with the surface of the roadway present plane surfaces.

Smith v. *Snow*, 294 U.S. 1 at pp. 11, 13-16, 55 S. Ct. 279; 79 L Ed. 721

"We may take it that, as the statute requires, the specifications just detailed show a way of using the inventor's method, and that he conceived that particular way described was the best one. But he is not confined to that particular mode of use since the claims of the patent, not its specifications, measure the invention. *Paper Bag Patent Case*, 210 U.S. 405, 419; *McCarty* v. *Lehigh Valley R. Co.*, 160 U.S. 110, 116; *Winans* v. *Denmead*, 15 How. 330, 343. While the claims of a patent may incorporate the specifications or drawings by reference, see *Snow* v. *Lake Shore R. Co.*, 121 U.S. 617, 630, and thus limit the patent to the form described in the specifications, it is not necessary to embrace in the claims or describe in the specifications all possible forms in which the claimed principle may be reduced to practice. It is enough that the principle claimed is exemplified by a written description of it and of the manner of using it 'in such full, clear, concise, and exact terms' as will enable one 'skilled in the art to make, construct, compound and use the same.'" (p. 11) * * *

"It is evident that Claim 1 does not prescribe that the current of air shall be propelled by any particular means, except that it shall be by means other than variation of temperature, nor does it prescribe that the means of propulsion shall be given any particular location, or that the current of air shall be guided by any particular means or given any particular direction. The omission of these requirements from Claim

1 is the more pointed as the other claims of the patent speak in particular of a power-driven fan, of the location of the fan, of curtains and a partition obviously intended to give direction to the current of air, of a vertically directed current of air, and of air circulating from the bottom of the chamber into the parts of it occupied by the tiers of egg trays *Thus by striking an obviously intended contrast with other claims, Claim* 1 *covers broadly the essential elements of the Smith invention as we have already described it. Symington Co.* v. *National Malleable Castings Co.*, 250 U.S. 383, 385; *Lamson Consolidated Store Service Co.* v. *Hillman*, 123 Fed. 416, 419 (C.C.A. 7th); *Wm. B. Scaife & Sons Co.* v. *Falls City Woolen Mills*, 209 Fed. 210, 214 (C.C.A. 6th)." (Emphasis added)

"Examination of the claim, in the light both of scientific fact and of the particular form in which the petitioner reduced the claim to practice as described in the specifications, makes it plain that the claim does not call for a particular order or arrangement of the eggs in staged incubation in the incubator, or that the propelled current should reach them in any particular order, or that it should be guided, controlled or directed by any particular means, or in any particular manner other than that it should be of sufficient velocity to produce the results prescribed by the claim. If the matter were doubtful, it is plain from what has been said that the character of the patent and its commercial and practical success are such as to entitle the inventor to broad claims and to a liberal construction of those which he has made. *Moreley Machine Co.* v. *Lancaster*, 129 U.S. 263, 273-277; *Eibel Co.* v. *Paper Co.*, 261 U.S. 45, 63; *Winans* v. *Denmead, supra*, 341. In

such circumstances, if the claim were fairly susceptible of two constructions, that should be adopted which will secure to the patentee his actual invention, rather than to adopt a construction fatal to the grant, *Keystone Manufacturing Co.* v. *Adams*, 151 U.S. 139, 144, 145; *McClain* v. *Ortmayer*, 141 U.S. 419, 425.

"2. We find nothing in the file wrapper defense to disturb our conclusion as to the correct interpretation of Claim 1. It is a familiar rule that a patentee cannot broaden his claim by dropping from it an element which he was compelled to add in order to secure his patent. *I. T. S. Rubber Co.* v. *Essex Rubber Co.*, 272 U.S. 429, 443; *Smith* v. *Magic City Club*, 282 U.S. 784, 789, 790. But the file wrapper lends no support for the application of this rule to petitioner's Claim 1.

"The history of Smith's application in the Patent Office is a long one. Four groups of method claims were successively presented to the Patent Office and three were successively rejected. The fourth group ultimately matured into Claims 1, 2, and 3 of the patent. It suffices to say that Claims 1 and 25 of the first group claimed broadly, 'The method of hatching eggs by arranging the eggs in a column and applying heated air forced about the eggs, the heated air being adapted to the eggs in various stages of incubation,' and 'the method of hatching eggs by arranging the eggs in a column one above the other and forceing heated air through said column.' In due course the broad claims thus asserted were modified and narrowed by the inclusion of new elements, until they appeared in the form of Claim 1 of the patent. But, as we have seen, none of these additions involves any particular order of arrangement of the eggs or any particular direction

or control of the air current, except that the current is to be 'of sufficient velocity to circulate, diffuse and maintain the air throughout the chamber at substantially the same temperature.'

"It is an illuminating fact that the entire written argument filed in support of Claim 1, as it was finally presented to the Patent Office and allowed, makes no reference to any order or arrangement of the eggs, or to shifting the location of the eggs in the incubator, no reference to the location of the fan, the direction of the air current, or to curtains or partitions. The features emphasized were the superiority, over drafts caused by variations of temperature, of 'current produced by mechanical means' applied to eggs in staged incubation arranged at different levels, the conservation of moisture, and the elimination of foul air by the restricted air outlets, all features of Claim 1 which are characteristic of both petitioner's and respondents' incubators. We find nothing in the file wrapper to suggest that any addition was made to Claim 1 to restrict the patent to any particular order of arrangement of the eggs or any particular direction or means of control of the current of air, other than its velocity, and nothing to estop the patentee from asserting that the claim is not restricted by such features. See *Baltzley* v. *Spengler Loomis Mfg. Co.*, 262 Fed. 423, 426 (C. C. A. 2d); *National Hollow B. B. Co.* v. *Interchangeable B. B. Co.*, 106 Fed. 693, 714 (C. C. A. 8th). *It is of no moment that in the course of the proceedings*

in the Patent Office the rejection of narrow claims was followed by the allowance of the broader Claim 1. *Westinghouse Electric & Mfg. Co.* v. *Condit Electrical Mfg. Co.*, 194 Fed. 427, 430 (C. C. A. 2d) (Emphasis added) (p. 13-16) * * *

> *Westinghouse Electric & Mfg. Co.* v. *Condit Electrical Mfg. Co.* (2nd C.C.A. 1911), 194 F. 427 at p. 430

"We have reached the conclusion of invalidity without referring to the proceedings in the Patent Office because we fail to see that those proceedings have any bearing upon the questions arising in this case. Sometimes such proceedings are of importance, especially where a matter of estoppel is involved. Thus a patentee who, in order to avoid a rejection of his application, inserts limitations in his claims is estopped from contending that the patent as issued should be construed as if such limitations had not been made. But, as a general rule, the interpretation to be placed upon the claims and specification of a patent is to be determined from the language of the grant, and the proceedings in the Patent Office are quite immaterial. Such is the situation in the present case. Original claims were rejected in the Patent Office. Thereupon the applicants, instead of limiting their claims, substituted broader ones which were accepted. Presumably the examiner changed his mind. But whatever be the explanation of his position, nothing whatever is shown to work an estoppel against the patentees. Instead of surrendering something which they now claim to obtain that which was allowed, they claimed something more and got it." (p. 430)

Angelus Sanitary Can Mach. Co. v. *Wilson* et al (9th CCA, 1925), 7 F2d, 314 at p. 318.

"Appellants rely much upon the file wrapper which shows that Wilson's claim 2 (originally claim 6) was rejected and then amended to avoid references (Brenzinger, No. 813,482, Black, No. 858,785, and Wegner, No. 1,164,751) cited against them. Originally the claim did not have the words "encircling the can top" before the word 'for,' and prior to Wilson's amendment considerable correspondence was had between the Patent Office and appellants; Wilson contending that the references to Brenzinger and Black were not well founded. Conceding the principle that by amending Wilson is limited to the form and language of the claims as allowed, nevertheless *he is not limited to any detailed specific construction to avoid any reference cited against it, nor is he estopped from claiming by the amended claim every improvement and combination which he has invented and which was not disclosed by those references. National Hollow Brake Beam Co.* v. *Interchangeable Brake Beam Co.*, 106 F. 693, 715 45 C. C. A. 544; *Owens Co.* v. *Twin Separator Co.*, 168 F. 259, 93 C. C. A. 561; *Auto Pneumatic Action Co.* v. *Kindler & Collins*, 247 F. 323, 159 C. C. A. 417. (Emphasis added)

"To apply that principle: The words 'eccentric encircling ring' are not found in the amendment to Claim 2; nor is the claim limited to exact features, as, for example, was the claim discussed in *Wilson & Willard Mfg. Co.* v. *Union Tool Co.*, 249 F. 729, 161 C.C.A. 639, certiorari denied 248 U.S. 559, 39 S. Ct. 6, 63 L. Ed. 421. Therefore there should be no meaning put upon the words "encircling can top" by which there is

a limitation to the eccentric encircling ring, unless the specifications and the drawings, which showed eccentric rings, taken in connection with Wilson's claim 2, make it obvious that he has limited his claim to the use of eccentric rings. The Patent Office may have distinguished Wilson's type of machine from others by reason of specification of the encircling in the first seaming means, but such distinction does not necessarily limit all other elements to that specified eccentric ring with a cam bearing upon it. Interpretation of the claim as allowed may be broad enough to cover improvement other than is disclosed by the references cited aganst it. In *National Hollow Brake Beam Co.* v. *Interchangeable Brake Beam Co.*, supra, the court, through Judge Sanborn, said: '*The description in a specification or drawing of details which are not, and are not claimed as, essential elements of a combination, is the mere pointing out of the better method of using the invention* . . . A reference in a claim to a letter or a figure used in a drawing and in the specification to describe a device or an element of a combination does not limit the claim to the specific form of that element there shown, unless that particular form was essential to, or embodied the principle of, the improvement claimed.' (Emphasis added)

"We regard claim 2, in the element of encircling means, as entitled to a construction which includes a fairly liberal range of equivalents. The difference in the use of a mechanical equivalent does not avoid infringement. In *Eibel Process Co.* v. *Paper Co.*, 261 U.S. 45, 43 S.Ct. 322, 67 L. Ed. 523, the court, through the Chief Justice, clearly reiterated the doctrine that where an inventor, though not a pioneer in the sense of hav-

ing created a new art, has made a very useful discovery which has substantially advanced the art, his patent, though but an improvement on an old machine, may be entitled to liberal treatment. That same principle was applied by this court in *Smith Cannery Co.* v. *Seattle Astoria Iron Works* (C. C. A.) 261 F. 87. *Defendants therefore cannot escape infringement by adding to or taking from the patented device by changing its form, or even by making it somewhat more or less efficient, while they retain its principle and mode of operation and attain its results by the use of the same or equivalent mechanical means. Lourie v. Lenhart*, 130 F. 122, 64 C. C. A. 456; *Letson* v. *Alaska Packers Association*, 130 F. 129, 64 C. C. A. 463; *Eck* v. *Kutz* (C. C.) 132 F. 758. By varying the encircling means, but producing the same results in substantially the same manner, there is infringement. Both physical and mechanical encircling with centering are found in defendants' machine. *Union Paper Bag Machine Co.* v. *Murphy*, 97 U.S. 120, 24 L. Ed. 935; *Kinloch Telephone Co.* v. *Western Electric Co.*, 113 F. 659, 51 C. C. A. 362; *Auto Pneumatic Action Co.* v. *Kindler & Collins*, supra; *Pangborn Corporation* v. *Sly Mfg. Co.* (C. C. A. 284 F. 217." (Emphasis added) (p. 318)

R. Hoe & Co. Inc. v. *Goss Printing Press Co.* (2nd C. C. A. 1929), 30 F2d 271 at p. 275.

"Upon the issue of infringement we are not in agreement with the District Judge. While we think the claim is of small compass, the defendant's machine answers every element, both verbally and functionally. Nor do we see the pertinency of the cancellation of claim 15 in the office. We have repeatedly said that

we will not look to the file wrapper for estoppels, except in case the patentee tries to expand his claim by omitting an element which leaves it identical with one which he has abandoned. *Westinghouse Electric* v. *Condit Electrical Co.*, (C. C. A.) 194 F. 427, 430; *Auto Pneumatic Co.* v. *Kindler & Collins*, (C. C. A.) 247 F. 323, 328; *Spalding v. Wanamaker*, (C. C. A.) 256 F. 530, 553, 534." (p. 275)

Research Products Co. v. *Tretolite Co.*, (9th C.C.A. 1939) 106 F. 2d 530 at pp. 535-536.

"Upon the claim of non-infringement the appellants contend that the claims of the patent are limited by occurrences in the patent office shown by the file wrapper. It is shown that claim 14 specifying the use of a sulfonated oil as a treating agent was withdrawn; hence that the 'sulfonated oil' used by the appellants cannot infringe. Claim 14, the special master held, was broad enough to include treatment by modified mineral oils, not shown or included in the specifications and hence the claim was properly withdrawn. In any event its withdrawal did not affect the plain terms of the claims allowed. *Such withdrawal would only be important where the allowed claims were ambiguous.*" (Emphasis added) (p. 535, 536)

G. H. Packwood Mfg. Co. v. *St. Louis Janitor Supply Co.*, (8th C. C. A. 1941) 115 F. 2d 958 at pp. 962-963.

"It is of no consequence that, in the course of the proceedings in the Patent Office, the rejection of narrow claims was followed by the alowance of a broader

caim. *Westinghlouse Electric & Mfg. Co.* v. *Condit Electrical Mfg. Co.*, 2 Cir., 194 F. 427, 430; *Smith* v. *Snow*, 294 U.S. 1, 16, 55 S.Ct. 279, 79 L.Ed. 721; See and compare, *National Hollow Brake-Beam Co.* v. *Interchangeable Brake-Beam Co.*, 8 Cir., 106 F. 693, 714.

"The defendant also contends that Claim 4 must be read in the light of the specification and drawings, and that, when so read, it is apparent that the accused device does not infringe, because the dispensing element attached to the plunger of that device is different.

"The particular forms of devices described in specifications are to be considered as the forms which are preferred by the inventor. *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U.S. 405, 418, 28 S.Ct. 748, 52 L.Ed 1122; *National Hollow Brake-Beam Co.* v. *Interchangeable Brake-Beam Co.*, 8 Cir., 106 F. 693, 715; *J. L. Owens Co.* v. *Twin City Separator Co.*, 8 Cir., 168 F. 259, 266; *McDonough* v. *Johnson-Wentworth Co.*, 8 Cir., 30 F.2d 375, 384. 'An inventor must describe what he conceives to be the best mode, but he is not confined to that. If this were not so most patents would be of little worth. . . . The invention, of course, must be described and the mode of putting it to practical use, but the claims measure the invention. They may be explained and illustrated by the description.' *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U.S. 405, 418, 419, 28 S.Ct. 748, 751, 52 L.Ed. 1122. 'In making his claim the inventor is at liberty to choose his own form of expression, and while the courts may construe the same in view of the specifications and the state of the art, they may not add to or detract from the claim.' *Cimiotti Unhairing Co.* v.

American Fur Refining Co., 198 U.S. 399, 410, 25 S.Ct. 697, 702, 49 L.Ed. 1100. See, also, *McDonough* v. *Johnson-Wentworth Co.*, 8 Cir., 30 F.2d 375; *Smith* v.*Snow*, 294 U.S. 1, 11, 55 S.Ct. 279, 79 L.Ed. 721. The character of a patent and its commercial and practical success may be such as entitle the inventor to broad claims and to a liberal construction of those he has made. *Smith* v. *Snow*, 294 U.S. 1, 14, 55 S.Ct. 279, 79 L. Ed. 721.

"It is also to be remembered that the doctrine of equivalents is applied to other than primary or generic patents and that, while the range of equivalents depends upon the extent and nature of the invention, even a nongenerac or specific patent is entitled to some range of equivalents. 'Any patent, however, has some range of equivalents, unless form is made the indispensable thing. And the rule is especially applicable where the infringer takes the whole gist of the invention, as in this case.' *Frick Co.* v. *Lindsay*, 4 Cir., 27 F.2d 59, 62. See, also, *McDonough* v. *Johnson-Wentworth Co.*, 8 Cir., 30 F.2d 375, 384; *Freeman* v. *Altvater*, 8 Cir., 66 F.2d 506, 510, 511." (p. 962, 963)

> *Saco-Lowell Shops v. Reynolds*, 141 F.2d 587 at pp. 593-594.

"The principle applicable is that stated by Mr. Justice Curtis in the leading case of *Winans* v. *Denmead*, 15 How. 330, 342, 14 L.Ed. 717,as follows:

> 'It is only ingenious diversities of form and proportion, presenting the appearance of something unlike the thing patended, which give rise to questions; and the property of inventors would

be valueless, if it were enough for the defendant to say, your improvement consisted in a change of form; you describe and claim but one form; I have not taken that, and so have not infringed. The answer is, my improvement did not consist in a change of form, but in the new employment of principles or powers, in a new mode of operation, embodied in a form by means of which a new or better result is produced; it was this which constituted my invention; this you have copied, changing only the form; * * * '

"And the rule was applied and stated with great clarity by Mr. Justice Clifford in *Union Paper-Bag Machine Co.* v. *Murphy*, 97 U.S. 120, 24 L.ED. 935, from which we quote as follows:

" 'Except where form is of the essence of the invention, it has but little weight in the decision of such an issue, the correct rule being that, in determining the question of infringement, the court or jury, as the case may be, are not to judge about similarities or differences by the names of things but are to look at the machines or their several devices or elements in the light of what they do, or what office or function they perform, and how they perform it, and to find that one thing is substantially the same as another, if it performs substantially the same function in substantially the same way to obtain the same result, always bearing in mind that devices in a patented machine are different in the sence of the patent law when they perform different functions or in a different way, or produce a substantially different result.

" 'Nor is it safe to give much heed to the fact that the corresponding device in two machines organized to accomplish the same result is different in shape or form the one from the other, as it is necessary in every such investigation to look at the mode of operation or the way the device works, and at the result, as well as at the means by which the result is attained.

" 'Inquiries of this kind are often attended with difficulty; but if special attention is given to such portions of a given device as really does the work, so as not to give undue importance to other parts of the same which are only used as a convenient mode of constructing the entire device, the difficulty attending the investigation will be greatly diminished, if not entirely overcome. *Cahoon* v. *Ring* (Fed. Cas. No. 2,292), 1 Cliff. (592), 620.

" 'Authorities concur that the substantial equivalent of a thing, in the sense of the patent law, is the same as the thing itself; so that if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape. *Curtis, Patents* (4th ed.), sec. 310.'

"And in the comparatively recent case of *Sanitary Refrigerator Co.* v. *Winters*, 280 U.S. 30, 41, 50 S.Ct. 9, 12, 74 L.Ed. 147, the Supreme Court, in holding a latch for refrigerator doors infringed by a device which employed the same principle of operation with a slight rearrangement of parts, said:

" 'There is a substantial identity, constituting infringement, where a device is a copy of the thing

described by the patentee, 'either without variation, or with such variations as are consistent with its being in substance the same thing.' *Burr* v. *Duryee*, 1 Wall. 531, 573, 17 L.Ed. 650. Except where form is of the essence of the invention, it has little weight in the decision of such an issue; and, generally speaking, one device is an infringement of another 'if it performs substantially the same function in substantially the same way to obtain the same result. . . . Authorities concur that the substantial equivalent of a thing, in the sense of the patent law, is the same as the thing itself; so that if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.' *Union Paper Bag Machine Co.* v. *Murphy*, 97 U.S. 120, 125, 24 L.Ed. 935. And see *Elizabeth* v. *Pavement Co.*, 97 U.S. 126, 137, 24 L.Ed. 1000. That mere colorable departures from the patented device do not avoid infringement, see *McCormick v. Talcott*, 20 How. 402, 405, 15 L.Ed. 930. A close copy which seeks to use the substance of the invention, and, although showing some change in form and position, uses substantially the same devices, performing precisely the same offices with no change in principle, constitutes an infringement. *Ives* v. *Hamilton*, 92 U.S. 426, 430, 23 L.Ed. 494.' "

"In *Claude Neon Lights, Inc.* v. *E. Machlett & Son et al.*, 2 Cir., 36 F.2d 574, 576, Judge Learned Hand pointed out that the doctrine of equivalents means more than that the language of claims shall be

generously construed, being based upon the theory that the claim is not intended to be verbally definitive, but to cover the invention, which should to some extent be gathered from the disclosure at large. Summarizing his conclusion, with respect to the apparent conflict between the doctrine of equivalents and the doctrine that the patent is limited by the claims, he says:

> " 'On the one hand, therefore, the claim is not to be taken at its face—however freely construed —but its elements may be treated as examples of a class which may be extended more or less broadly as the disclosure warrants, the prior art permits, and the originality of the discovery makes desirable. On the other, it is not to be ignored as a guide in ascertaining those elements of the disclosure which constitute the 'invention," and without which there could be no patent at all.'

"See also *Smith* v. *Snow*, 294 U.S. 1, 55 S.Ct. 279, 79 L.Ed. 721; *Waxham* v. *Smith*, 294 U.S. 20, 55 S.Ct. 277, 79 L.Ed. 733; *Moreley Sewing Machine Co.* v. *Lancaster*, 129 U.S. 263, 9 S.Ct. 299, 32 L.Ed. 715; *Imhaeuser* v. *Buerk*, 101 U.S. 647, 656, 25 L.Ed. 945; *Oates v. Camp*, 4 Cir., 83 F.2d 111; *Hoeltke* v. *C. M. Kemp Mfg. Co.*, 4 Cir., 80 F.2d 912; *Wine Ry. Appliance Co.* v. *Baltimore & O. R. Co.*, 4 Cir., 78 F.2d 312; *Black & Decker Mfg. Co.* v. *Baltimore Truck Tire Service Corp.*, 4 Cir., 40 F.2d 910; *Gulf Smokeless Coal Co.* v. *Sutton, Steele & Steele*, 4 Cir., 35 F.2d 433; *Frick Co.* v. *Lindsay*, 4 Cir., 27 F.2d 59; 20 R.C.L. 1155, 1156." (p. 593, 594)

Cutter Laboratories v. *Lyophile-Cryochem Corp.*, (9th C.C.A. 1949) 179 F.2d 80 at p. 89.

"Appellant invokes the doctrine of *Keystone Bridge Co.* v. *Phoenix Iron Co.*, 95 U.S. 274, 24 L.Ed. 344, that no limitation which a patentee puts into his claim may be ignored, whether or not the limitation was necessary to validate the claim. See, also, *Fay* v. *Cordesman*, 109 U.S. 408, 3 S.Ct. 236, 27 L.Ed. 979. One reason for this rule is to give notice to possible infringers of the claim's limits; another is to relieve the courts of the burden of deciding just what elements are material to the validity of the claim. But where attempts are made to avoid infringement by a relatively slight, well known variation in the claimed process or product, the strict rule is relaxed by the doctrine equivalents. 'Without that doctrine every claim is indeed entitled to be interpreted in the light of the specifications as a whole, and not to be read merely with a dictionary. But often even with the most sympathetic interpretation the claim cannot be made to cover an infringement which in fact steals the very heart of the invention: no matter how auspiciously construed, the language forbids. It is then that the doctrine of equivalents intervenes to disregard the theory that the claim measures the monopoly and ignores the claim in order to protect the real invention. *Claude Neon Lights* v. *Machlet & Son*, 2 Cir. 36 F.2d 574; see also, *Otis Elevator Co.* v. *Atlantic Elevator Co.*, 2 Cir., 47 F.2d 545, 547; *Oates* v. *Camp*, 4 Cir., 83 F.2d 111, 116.' *Keith v. Charles* E. *Hires Co.*, 2 Cir., 116 F.2d 46, 48." (p. 89) * * *

Kemart Corp. v. *Printing Arts Research Laboratories,* (9th C.C.A. 1953) 201 F.2d 624 at 627-628, 633.

"Since we are of the opinion that the Marx Patent is not infringed by appellant's process, we shall proceed immediately to discuss that question. Appellee urges that the trial court's finding of infringement was a finding of fact, not to be disturbed unless clearly erroneous. However, it is well settled that where, as here, there is no dispute as to the evidentiary facts, and the record and exhibits enable us to clearly comprehend the nature both of the process patented and the alleged infringing process, the question of infringement resolves itself into one of law, depending upon a comparison between the two processes and the correct application thereto of the rule of equivalency.[5]

5. *United States* v. *Esnault-Pelterie,* 303 U.S. 26, 30, 58 S.Ct. 412, 82 L.Ed. 625; *Sanitary Refrigerator Co.* v. *Winters,* 280 U.S. 30, 36, 50 S.Ct. 9, 74 L.Ed. 147; *Great Atlantic & Pacific Tea Co.* v. *Supermarket Equipment Corp.,* 340 U.S. 147, 153, 71 S.Ct. 127, 95 L.Ed. 162; *Stuart Oxygen Co.* v. *Josephian,* 9 Cir., 162 F.2d 857, 859; *Hanovia Chemical & Mfg. Co.* v. *David Buttrick Co.,* 1 Cir., 127 F.2d 888, 889-891; *Galland-Henning Mfg. Co.* v. *Logemann Bros. Co.,* 7 Cir., 142 F.2d 700, certiorari denied 323 U.S. 767, 65 S.Ct. 120, 89 L.Ed. 614; cf. *Chas. H. Lilly Co.* v. *I. F. Laucks, Inc.* 9 Cir., 68 F.2d 175, 186, certiorari denied 293 U.S. 573, 55 S.Ct. 84, 79 L.Ed. 671; *Wire Tie Mach. Co.* v. *Pacific Box Corp.,* 9 Cir., 102 F.2d 543, 552, affirmed on rehearing, 9 Cir., 107 F.2d 54; *Gomez* v. *Granat Bros.,* 9 Cir., 177 F.2d 266, 269, certiorari denied 338 U.S. 937, 70 S.Ct. 351, 94 L.Ed. 578. (pp. 627-628) * * *

"To support his contention that this finding and judgment is consistent with a finding of infringement of the other claims, appellee invokes the rule that in interpreting a series of claims, a limitation not present

in one must not be implied where the same limitation appears in later claims.[24] The reason of the rule is that each claim is in theory a separate patent, so that two claims should not be so construed as to make them identical.[25]

24. *Western States Mach. Co.* v. *S. S. Hepworth Co.*, 2 Cir., 147 F.2d 345, 350, certiorari denied 325 U.S. 873, 65 S.Ct. 1414, 89 L.Ed. 1991; *Grayson Heat Control, Ltd.* v. *Los Angeles Gas Appliance Co., Inc.*, D.C., 40 F.Supp. 928, 935, affirmed, 9 Cir., 134 F.2d 478.

25. *Grayson Heat Control, Ltd.* v. *Los Angeles Gas Appliance Co.*, supra, note 24." (p. 633)

Hunt Tool Company vs. *Lawrence* (5th C.C.A. 1957), 242 F.2d 347 at p. 354.

"Also, since the patent examiner's objection was with reference to the prior art, appellants are protected by file wrapper estoppel only if they can show that their alleged infringement is in an area to which the prior art could possibly have been thought to extend so as to make it impossible to make valid claims there, for there is no reason to presume that applicant made a disclaimer broader than necessary to yield to the actual challenge to his claim. See *New York Scaffolding Co.* v. *Whitney*, 8 Cir., 224 F. 452, 462, certiorari denied, 239 U.S. 640, 36 S.Ct. 161, 60 L.Ed. 482." (p. 354)

Stearns v. *Tinker & Rasor*, (9th C.C.A. 1958) 252 F. 2d 589 at pp. 596-597.

"It is axiomatic that only a claim of a p a t e n t can be infringed. The claims of a patent measure the scope of a patent monopoly. * * *

"In *Chicago Pneumatic Tool Co.* v. *Hughes Tool Co.*, 10 Cir., 97 F.2d 945, 946, it is stated:

" 'It is contended that there is lack of infringement for the reason that the patent is limited to a structure in which the teeth on one cone have an interfitting relation with those on the other, while in the accused assembly the cones are spaced apart in such manner that the teeth do not interfit. The claims do not provide that the teeth shall interfit. Claims 2 and 3 provide that they shall be adapted to interfit, and claims 3 and 4 are silent in respect of the matter. The specifications described the invention with particular reference to the interfitting feature of an earlier patent issued to Scott, and the diagrammatical drawing discloses interfitting teeth. But it is not essential that all of the embodiments of a patent be described. It is enough if the invention be described together with that mode which is conceived to be the best for putting it into practical use; and where that has been done, the patent is not confined to the precise mode outlined. [Cases cited.]

" 'Neither is it necessary that every embodiment be illustrated by the drawings unless the form of the device is the principle of the invention. Where the particular form is not an embodiment of the principle of the asserted invention, the patent is not restricted to the exact form of construction shown in the diagrammatical drawing. And a device infringes if it embodies the essential principles taught by the patent, even though there is a departure from the drawings to the extent of simple changes which would be readily conceived

and made by a mechanic in the course of constructing a device on the patent.' [Cases cited.] See also *Cameron Iron Works* v. *Stekoll*, 5 Cir., 1957, 242 F.2d 17.

"We think the above quotation is particularly applicable to the instant case. The invention of the Stearns patent is not solely the 'means' used to 'push' or 'roll' the coiled spring electrode. Rather the novelty of the Stearns invention is that the spring electrode is caused to roll along the member to be tested, while maintaining electrical contact with the high voltage test circuit. Here Claim 1 did not call for wheels or rollers while other claims did. Other claims should not be read into Claim 1. *Cameron Iron Works* v. *Stekoll*, 5 Cir., 1957, 242 F.2d 17. *Kennedy* v. *Trimble Nurseryland Furniture*, 2 Cir., 99 F.2d 786, 788. Figure 15, relied on by the District Court, did not state that wheels 68 and 69 had to be used. We read the specification as showing the preferred embodiment of the invention and that *if* wheels 68 and 69 are used, then they must be free to rotate. The patent also stated that the descriptions and accompanying drawings were 'certain embodiments of this invention,' which were by way of illustration and example." (pp. 596, 597)

Joints, Inc. v. *Garrett* (D.C.S.D. Cal. C.D. 1952) 102 F.Supp. 760 at P. 761.

"Each of these elements may be old. But they do not, either in the prior art cited, or other devices introduced at the trial, exist in the cooperative relationship in which they are used in this patent in order to achieve a distince result,—namely, a new method of coupling sewer pipes to avoid the inconvenience of the

more rigid couplings used before. The claims are simple and are purely descriptive. There is no need to resort to the specifications to limit the scope of the invention. See, *Schnitzer* v. *California Corrugated Culvert Co.*, 1944, 9 Cir., 140 F.2d 275. Nor do we find any elements of estoppel in the file wrapper. And if it be true, as contended by the defendant, that after rejecting the original claims, the claims actually allowed were as comprehensive, the fact does not speak against the validity of the claims allowed. Even assuming the identity of the claims allowed and those originally asked and disallowed, the fact does not spell invalidity. It may merely indicate either that the final form was more acceptable to the Patent Office, because it overcame the objection based upon the references cited.

* * * * *

"Or, it may well be that, being human, the Patent Office changed its views before final rejection." (p. 761)

LIST OF APPELLANTS' EXHIBITS

NAME	Trial Exhibit	Woody Dep. Ex.	Identified Record Page	In Evidence Record Page
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Assignment Moon to Western Tool & Engineering Co., Inc.	2		112	113
Assignment Western Oil Tool & Engineering Co., to Moon and Wagner	3		111	112
Assignment Moon and Wagner to Philip Subkow	4		111	112
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